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BRODIX'S AMERICAN AND ENGLISH PATENT CASES.

VOL. VIII.

DECISIONS

ON THE LAW OF

PATENTS FOR INVENTIONS

All cases here cited in the Federal, State, English and Canadian Courts on patents, trade-marks, copyrights, designs and labels, will be published in their regular order as part of this series.

EDITED AND ANNOTATED

BY

WOODBURY LOWERY.

WASHINGTON, D. C.

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EXPLANATION OF NOTES.

The Text of the Opinion.

The text of the opinion of the court is taken wholly from the record, and not from the official reporter. The reason for this is that the record is the original source from which the reporter himself obtains his matter; that it is complete, no cases decided by the court being omitted therefrom; that on application to the clerk of the court for a certified copy of an opinion, it is the copy of the opinion as it appears in the record, and not as printed in the official report that he furnishes.

Prominent among the advantages secured by printing the record, is the fact that the statement of the case, involving all those facts which the court considers material to the understanding of its opinion is made by the court itself, strictly in view of its decision, concisely and judicially, whereas the official reporters, Wallace and Otto, have omitted whole pages of the statement as made by the court, substituting their own, or have so amended and varied the court's statement as to make it practically a new one. The case of *Burr v. Duryee*, reported in volume VII, is a notable example, on consulting which the foot-notes appended will be found to point out the variation of the official reporter from the original record.

It will also be observed that this practice of these reporters has often been the cause of omitting in their reports the introductory part of the opinion as given in the record, supplying it from their own point of view and actually beginning the report of the opinion at an intermediate point of the record.

The text in this work has been prepared from printed certified copies of the record, and has undergone a second comparison while in type before printing made directly with the original record in the Supreme Court, giving an assurance that no effort has been spared to secure accuracy.

It has further been compared with the officially published reports and the divergences of the latter from the record pointed out in foot-notes to each case where they occur, in justification of the course pursued by the editor, and for the convenience of the profession.

The Syllabi, or Head Notes.

The head notes have been prepared with care and considerable elaboration, the editor deeming it more convenient to the profession that he should err on the side of too great minutia in calling their attention even to what may be regarded as *dicta* of the court. At the end of each head-note will be found between brackets, the page of the opinion of which it is a digest. The head-notes are numbered consecutively and at the end of each case there will be found under the corresponding number of the head-note a note of Supreme Court Patent Cases, in chronological order, relative to the subject-matter of the head-note.

The Annotations, or Notes at ending of Case.

Notes at ending of case are of three kinds: those in the form of notes to the head-notes; those relating to the patent in suit; and those relating to cases in which the particular case reported has been cited.

Notes to the head-notes. These consist of Supreme Court Patent Cases, arranged in chronological order, in which the substance of the head-note has been restated, affirmed, or applied, as the case may be; these have been brought down to the latest decisions of the court accessible at the date of printing the volume.

The patent in suit is next given with its reissues, if any, followed by a chronological list of all reported Federal suits in which the patent has been involved.

Citations of the particular opinion. Then follows a list of those cases in which the opinion reported has been cited. This list includes Federal, State, and Canadian Cases, opinions of the Attorney-General, and of the Commissioner of Patents, and the latest text books, Curtis, 4th Edit., Walker, Merwin, and Abbott.

All the lists are chronological in arrangement and in the list of citations the dates are appended.

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Additional References, &c.

To facilitate the finding of any case appearing in the notes, not only is the original report given, but also volume and page of Robb, Fisher, Banning and Arden, and others in which it is reprinted.

Both in the opinion and arguments the rule has been followed of adding the *names* to cases cited by page and volume only, these additions to the text being included in brackets.

Blank lined spaces after each note and a blank page at the end of each case are left for the insertion of additional citations and of general notes.

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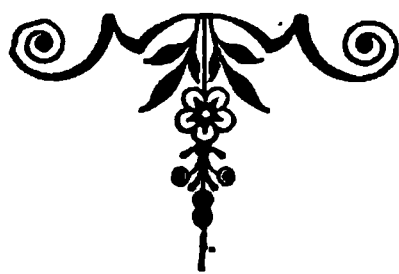
There are added a number of tables and two indexes for ready reference. These are Tables of Cases, Reference Table of Cases, Table of Patents in Suit, of Cases Cited, of Abbreviations, of Names of Justices, of Names of Counsel, an Index Digest and a Digest of Notes.

Reference is made throughout the work to the volume and page of the English cases already published as part of this series, wherever they occur.

WOODBURY LOWERY.

WASHINGTON, D. C.

Nov. 1, 1888.



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The object of comparing the pages in these cases is for convenience of reference showing where the text in the opinion of the court on each page of the Official Report is found in this edition, or if an attorney wishes to cite the Official Reports while using these volumes, he can readily do so by turning to this table and finding on what page in the official edition any page of the Opinion of the Court in this volume may be found.

In making this comparison, out of justice to ourselves, where we have inserted new material such as drawings, specifications, arguments of counsel, statements and parts of the opinion from the records which are not found in the Official edition we have so indicated.

As an example in the use of this table take the case of Rubber Co. v. Goodyear, which begins in 9 Wallace on page 788—see first column; in this volume, page 150—see third column; the opinion of the court begins in Wallace on page 789—see second column; in this volume, page 168—see fourth column, and thus through the opinion each page is compared. The pages between 150 and 168 in this volume contain drawings and specifications which we have inserted and that are not found in the Official Reports, and any omission in the consecutive numbering of the pages can be accounted for in the same manner.

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“ “	23 How. 10 [7 Am. & Eng. 72]	472. A.
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The King v. Sir Oliver Butler	3 Lev. 220	511. Opin.
Tongue v. Nutwell	17 Md. 212	444. A.
Towns v. Mead	16 C. B. (N. S.) 141	230. A.
Turner v. Yates	16 How. 14	461. A.
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Unwin v. Heath	32 Eng. L. & E. 85 . . .	442. A.
Vance v. Campbell	1 Black. 427 [7 Am. & Eng. 117]	441, 444. A.
Wallace v. Truesdell	6 Pick. 455	446. A.
Washburn v. Gould	3 Story, 122	353. A.
" "	3 Story, 122	375. Opin.
Wharton Am. Crim. Law 300, 301, note 7		499. A.
White v. Allen	2 Cliff. 228	360. Opin.
" "	2 Cliff. 230	375. Opin.
Whitney v. Holmes	15 Mass. 152	446. A.
Wilson v. Rousseau	4 How. 682 [4 Am. & Eng. 436]	274. Opin.
" "	4 How. 646 [4 Am. & Eng. 436]	519. A.
" "	4 How. 682 [4 Am. & Eng. 436]	520. A.
Wilson v. Sanford	10 How. 101 [5 Am. & Eng. 122]	471. A.
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" "	Taney (C. C.), 278 . . .	519. A.
Wood v. Williams	1 Gilp. 517, 1 Robb. Pat. Cas. 717	508. A.
Woodcock v. Parker	1 Gall. 438	353. A.
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" "	3 Story, 753	367. Opin.
Wyeth v. Stone	1 Story, 273	444. A.

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OF THE TITLES OF REPORTS AND WORKS OF LAW USED
IN THIS VOLUME.

Abb. Pat. Laws	Abbott's Patent Laws of all Nations.
Abb. U. S.	Abbott, U. S. Circuit Court.
Ad. & El. (N. S.)	Adolphus & Ellis, England, K. B.
Adol. & E.	Adolphus & Ellis, England, K. B.
Ala.	Alabama State Reports.
Allen	Allen's Massachusetts Reports.
Am. Law Jour.	American Law Journal.
Am. Law Reg. (N. S.)	American Law Register (New Series).
Am. & Eng.	American & English Patent Cases.
Ang. Lim.	Angell on Limitation of Actions.
Ang. & Ames Corp.	Angell & Ames on Corporations.
Att'y Gen.	Attorney General's Decisions.
B. & A.	Banning & Arden's Patent Cases, U. S.
B. & S., Q. B.	Best & Smith, England, Q. B.
Bacon's Abridg.	Bacon's Abridgment.
Bald.	Baldwin, U. S. Circuit Court.
Ban. & Ard.	Banning & Arden's Patent Cases, U. S.
Barb. Ch.	Barbour's New York Chancery Reports.
Barn. & C.	Barnwall & Cresswells, England, K. B.
Bing. (N. C.)	Bingham's New Cases, England, C. P.
Biss.	Bissell, U. S. Circuit Court.
Black	Black, U. S. Supreme Court.
Blatch.	Blatchford, U. S. Circuit Courts.
Bond	Bond, U. S. Circuit Court.
Bradw.	Bradwell's Illinois Reports.
Brock.	Brockenbrough, U. S. Circuit Court.
Brodix	Brodix's American & English Patent Cases.
Buls.	Bulstrode, England, K. B.
C. B. (N. S.)	Common Bench Reports, New Series.
C. D.	Commissioner of Patents' Decisions, U. S.
C. R. Rep.	Chancery Reports.
Car. & Kir.	Carrington & Kirwan, England, N. P.
Ch. App. Cas.	Chancery Appeal Cases, England.
Chit. Pl.	Chitty on Pleading.
Chitty Plead.	Chitty on Pleading.
Cliff.	Clifford, U. S. Circuit Court.
Cond. Reps.	Peters' Condensed Reports, U. S. Supreme Court.

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Conn.	Connecticut Reports.
Cow.	Cowen's New York Reports.
Cranch	Cranch, U. S. Supreme Court.
Ct. of Claims	Court of Claims, U. S.
Curt.	Curtis, U. S. Circuit Courts.
Curtis on Pats.	Curtis on Patents, U. S.
Dall.	Dallas, U. S. Circuit Court.
Dan. Ch. Pr.	Daniell's Chancery Practice.
Day	Day's Connecticut Reports.
Deady	Deady, U. S. Circuit Court.
Denio	Denio's New York Reports.
Dill.	Dillon, U. S. Circuit Court.
Dyer	Dyer, England, K. B.
Ellis & B.	Ellis & Blackburn, England, Q. B.
Ell. & Ell.	Ellis & Ellis, England, K. B.
Eng. L. & E.	English Law & Equity Reports.
Exch. W. H. & G.	Exchequer Reports (Welsby, Hurlstone & Gordon), England.
Fed. Rep.	Federal Reporter, U. S.
Fish.	Fisher's Patent Cases, U. S.
Fish. Pat. Rep.	Fisher's Patent Reports, U. S.
Flipp.	Flippin, U. S. Circuit Court.
Gall.	Gallison, U. S. Circuit Court.
Gill.	Gill's Maryland Reports.
Gilp,	Gilpin, U. S. District Court.
Godson on Pats.	Godson on Patents, England.
Gratt.	Gratton's Virginia Reports.
Gray	Gray's Massachusetts Reports.
Greenl. Ev.	Greenleaf on Evidence.
Green, Ch.	Green's New Jersey Chancery Reports.
H. of L.	House of Lords' Cases.
Hen. & Munf.	Hening & Munford's Virginia Reports.
Hill	Hill's New York Reports.
Hind. Pat.	Hindmarch on Patents, England.
Holmes	Holmes, U. S. Circuit Court.
Hopk.	Hopkins' New York Chancery Reports.
How.	Howard, U. S. Supreme Court.
Hughes	Hughes, U. S. Circuit Court.
Johns.	Johnson's New York Reports.
Jurist (N. S.)	The Jurist (New Series) England.
Kent Com.	Kent's Commentaries on American Law.
L. ed.	Lawyer's Edition of Supreme Court Reports.
L. R. C. P.	English Law Reports, Common Pleas.
L. R. Eq.	English Law Reports, Equity.
L. J. (N. S.)	The Law Journal, New Series, England.
L. Times (N. S.)	Law Times, New Series.

Law's Am. Dig.	Law's American Digest of Patents.
Law's Dig.	Law's Digest, London.
Law T. (N. S.)	Law Times Reports, New Series.
Leg. Gaz. Rep.	Legal Gazette Report.
Leg. Int.	Legal Intelligencer.
Lev.	Levinz's King's Bench Reports, England.
M. & R.	Manning & Ryland, England, K. B.
Sm. Lead. Cas.	Smith's Leading Cases.
M. & W.	Meeson & Welsby, England, Exch.
MacA.	MacArthur's District of Columbia Reports.
McAll.	McAllister, U. S. Circuit Court.
McC	McCrary, U. S. Circuit Court.
McCrary	McCrary, U. S. Circuit Court.
McL.	McLean, U. S. Circuit Court.
McLean	McLean, U. S. Circuit Court.
Mackey	Mackey, U. S. Circuit Court.
Maine	Maine Reports.
Man. G. & Scott	Manning, Granger & Scott, England, C. P.
Mas.	Mason, U. S. Circuit Court.
Mass.	Massachusetts Reports.
Md.	Maryland Reports.
Me.	Maine Reports.
Merwin on Pat. Invt.	Merwin on Patentability of Invention.
Met.	Metcalf's Massachusetts Reports.
Mich. Rep.	Michigan Reports.
Mitford Pl.	Mitford's Equity Pleading.
Mod.	Modern Reports, England, K. B.
Ms. D. C.	Manuscript Cases, District of Columbia.
Munf.	Munford's Virginia Reports.
N. H.	New Hampshire Reports.
N. Y.	New York Court of Appeals Reports.
New Eng. R.	New England Reporter.
Nott & McC.	Nott & McCord's South Carolina Reports.
O. G.	Official Gazette of Patent Office, U. S.
Pa.	Pennsylvania Reports.
Paige Ch. R.	Paige's New York Chancery Reports.
Paine	Paine, U. S. Circuit Court.
Pars. Cont.	Parsons on Contracts.
Perk.	Perkins on Pleading.
Pet.	Peters, U. S. Supreme Court.
Pet. C. C.	Peters, U. S. Circuit Court.
Phila.	Philadelphia Reports.
Pick.	Pickering's Massachusetts Reports.
Pitts. R.	Pittsburgh Reports.
R. & M.	Russell & Mylne's England Ch.
Rep.	The Reporter, U. S.
Robb.	Robb's Patent Cases.

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Russell on Crimes	Russell on Crimes and Misdemeanors.
Salk.	Salkeld, England, K. B.
Saunders on Plead. and Ev.	Saunders on Pleading and Evidence.
Sawy.	Sawyer, U. S. Circuit Court.
Scott (N. R.)	Scott's New Reports, England C. P.
Selwyns Nisi Prius	Selwyn's Law of Nisi Prius.
Sm. Lead. Cas.	Smith's Leading Cases.
Story	Story, U. S. Circuit Court.
Story Ag.	Story on Agency.
Story, Conflict of Laws	Story on Conflict of Laws.
Story Eq. Jurisp.	Story on Equity Jurisprudence.
Story Part	Story on Partnership.
Sumn.	Sumner, U. S. Circuit Court.
Sup. Ct. Rep. N. Y.	Supreme Court Reports, New York.
T. R.	Term Reports (Durnford & East), England.
Taney	Taney, U. S. Circuit Court.
Taunt.	Taunton, England, C. P.
Term R.	Term Reports (Durnford & East), England.
Tomlin's Brown's P. C.	Tomlin's Brown's Parliamentary Cases.
U. S.	United States Supreme Court Reports.
Ves.	Vesey, England, Ch.
Vern.	Vernon, England, Ch.
Vt.	Vermont Reports.
W. Bl.	Sir William Blackstone, England, K. B.
W. & M.	Woodbury & Minot, U. S. Circuit Court.
Walker on Pats.	Walker on Patents.
Wall.	Wallace, U. S. Supreme Court.
Wall., Jr.	Wallace, Jr., U. S. Circuit Court.
Wash.	Washington, U. S. Circuit Court.
Watts	Watts' Pennsylvania Reports.
Watts & S.	Watts & Sergeant's Pennsylvania Reports.
Web. P. C.	Webster's Patent Cases, England.
Wend.	Wendell's New York Reports.
West. Law J.	Western Law Journal, U. S.
Wharton Am. Crim. Law	Wharton's American Criminal Law.
Wheat.	Wheaton, U. S. Supreme Court.
Wheat. Selw.	Wheaton's Selwyn's Practice, England, N. P.
Whit.	Whitman's Patent Cases, U. S.
Willard's Eq. Jurisp.	Willard's Equity Jurisprudence.
Williams on Executors	Williams on Executors.
Wood. & M.	Woodbury & Minot, U. S. Circuit Court.
Woods	Woods, U. S. Circuit Court.
Younge & Collier	Younge & Collier, Chancery, England.

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DECISIONS
OF
THE SUPREME COURT
OF
THE UNITED STATES.
IN
PATENT CASES.

CHARLES N. TYLER, PLAINTIFF IN ERROR, v.
THE CITY OF BOSTON.*

7 Wall., 827-831. Dec. Term, 1868.

[Bk. 19, L. ed. 93; 2 Whit. 177.]

Argued January 18, 1869. Decided February 1, 1869.

Particular patent construed. Chemical equivalent. Composition of matter. Identity.

1. Letters patent No. 35,015, Tyler, C. N., March 24, 1863. Burning Fluid, commented on with reference to the insufficiency of the statement in the specification that "the exact quantity of fusel-oil which is necessary to produce the most desirable compound must be determined *by experiment*," and the term "equivalent" construed to mean "equal bulk," in view of the specification's description as "by measure crude fusel-oil one part, kerosene one part." (p. 10.)
2. Where a patent is claimed for the discovery of a new substance by means of chemical combinations, it should state the component parts of the new manufacture claimed with clearness and precision, and not leave the person attempting to use the discovery to find it out "by experiment." (p. 10.)

*See Explanation of Notes, page III.

Statement of the case.

3. The term "equivalent" when used with regard to the chemical action of such fluids as can be discovered only by experiment, only means *equally good*. (p. 10.)
4. A charge that the substantial identity of one compound of given proportions with another compound varying in the proportions, is a question of fact and for the jury, sustained. (p. 11.)

In error to the Circuit Court of the United States for the District of Massachusetts.

This action was brought in the court below by the plaintiff in error to recover damages for an alleged infringement of patent. Judgment having been rendered in that court for the defendant, the plaintiff sued out this writ of error.

The case is fully stated by the court.

The letters patent above referred to is as follows :

CHARLES N. TYLER, OF BUFFALO, NEW YORK.

IMPROVED COMPOSITION FOR BURNING-FLUIDS.

Specification forming part of Letters Patent No. 38,015, dated
March 24, 1863.

To all whom it may concern :

Be it known that I, Charles N. Tyler, of Buffalo, in the county of Erie, and State of New York, have invented or discovered certain new and useful compounds produced by the combination of the earthy and mineral oils with fusel-oil or fusel-oil and alcohol ; and I do hereby declare that the following is a full and clear description of said invention or discovery, and of the manner of manufacturing the said compounds.

The object of my invention or discovery is to extend the utility of the "mineral" and "earthy" oils, in which terms may be included the petroleum or rock oils, or

Statement of the case.

naphthas obtained directly from springs, the kerosene or paraffine oils, as they are sometimes called, which are obtained by distillation of bituminous substances, and coal and the refining of petroleum and other oils and naphtha that are derived by the distillation from the above-named substances.

The first part of my invention or discovery consists in a new compound substance, being a combination of fusel-oil with the mineral and earthy oils, which compound constitutes a "burning-fluid," by which term I mean a liquid which will burn for the purpose of illumination, without material smoke, in a lamp with a small solid wick and without a chimney.

The second part of my invention or discovery consists of a new compound substance produced by the combination of fusel-oil with naphtha and with alcohol, which compound constitutes a burning fluid.

The third part of my invention or discovery consists in the heavy oily liquids obtained by the combination of the petroleums, kerosenes, and other earthy oils with fusel-oil and the separation of the compound into parts by alcohol, the said heavy oily liquids constituting an oil suitable for painters and mechanical uses.

In the manufacturing of said compounds I make use of the crude fusel-oil obtained in the distillation of fermented grain and other substances for alcoholic liquors. It may be preferred to use that which is obtained from maize or "Indian corn," as it is commonly called, although that obtained in the distillation of various other fermented vegetable substances will answer the purpose. Refined fusel-oil may also be used, if preferred; but as the crude oil will answer the purpose the cost of refining is saved.

In manufacturing the compound which constitutes the first part of the invention or discovery, I find that a combination of crude fusel oil with the ordinary kerosene found in the market, (for the purpose of burning in kerosene-lamps, with a chimney and air-deflector,) whether such

Statement of the case.

kerosene be derived from distillation of the crude coal oils or from crude petroleum, will produce a good burning-fluid, capable of use in the common lamp without a chimney, when combined in the following proportions, by measure, viz: crude fusel-oil, one part; kerosene, one part. The two substances are agitated together in a vessel, so as to commingle them, and the mixture is permitted to rest a longer or shorter period, which depends upon circumstances, and which is generally less than twenty-four hours, when the mixture is found separated into two parts. The lower part is a watery liquid, which is small in bulk, and consists mainly of the water that exists in crude fusel-oil, which is drawn off from the bottom of the vessel, or it may be separated at once by the introduction of alcohol. The upper part is the compound substance produced by the combination of the fusel-oil with the kerosene, constituting the burning-fluid. In making this combination it is preferable to permit the mixture to settle in a vessel having a funnel-shaped bottom fitted with a stop-cock, so as to facilitate the withdrawal of the watery liquid with the least possible waste of burning-fluid or upper liquid, or the lower liquid may be withdrawn from the other by a siphon.

Naphtha and petroleum may be combined with fusel-oil alone in the same manner as kerosene, and is the compound substance constituting the second part of my invention or discovery, which is a good burning-fluid. It may be produced from naphtha by combining it with fusel-oil and alcohol in the following proportions, by measure, viz: naphtha, four parts; crude fusel oil, one part; alcohol, one and one-half parts. The naphtha and fusel-oil are first commingled, and the watery matter withdrawn, as before mentioned. The alcohol is then combined with the remainder by agitation. The alcohol for this purpose should be as nearly absolute as is found for sale in quantities in this market—say alcohol of ninety-five per cent.

In manufacturing the substance which constitutes the

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third part of my invention or discovery, I prefer to employ the crude petroleum obtained from oil-springs and separated by decantation from the water with which it is generally mixed. The petroleum is first commingled by agitation with crude fusel-oil in about the following proportions, by measure, viz: crude petroleum, three parts; crude fusel oil, one part. The mixture is permitted to settle and the watery liquid withdrawn as before mentioned. Then the residue is mixed by agitation with alcohol until it separates completely into two portions. To effect this result it is found that from half to two-thirds as much alcohol as fusel-oil is generally required. When the mixture has settled the upper part is drawn off and constitutes a good burning-fluid. The lower part, which is the heavier substance, constitutes an oil for painters' use and other mechanical purposes.

Having thus described the modes in which this discovery may be practiced with success, I do not confine this invention or discovery to the particular relative proportions in which the substances have been described as being combined, as the proportion may be varied according to circumstances or to suit the peculiar views of the manufacturer or user. Thus, in making the burning-fluid larger or smaller proportionate quantities of fusel-oil may be used; but if there be too small a quantity of fusel oil the burning-fluid will smoke in burning with a round wick in lamps without chimneys when the flame is as high as it should be—say one and one-half inch; and, on the other hand, if a larger quantity of fusel oil be used the flame will have less illuminating power. The object in view in manufacturing a burning-fluid should be to produce the strongest light without material smoke when the wick is pulled up above the wick-tube until the flame is at the desired height. The least possible quantity of fusel-oil should be used compatible with producing the result. Nor do I confine this discovery to the combination of kerosene alone or naphtha alone with fusel-oil, as the first combination described may

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be varied by the substitution of naphtha or crude petroleum in place of kerosene, or a part of the kerosene may be replaced by an equal quantity of naphtha or crude petroleum.

It is proper to state that the character of the compound is affected by the kind of mineral oil that is used, and the exact quantity of fusel-oil which is necessary to produce the most desirable compound should be determined for each kind of mineral oil used by experiment. Small quantities of alcohol may be added to a combination of kerosene and fusel-oil without producing any separation of the combination into parts.

This discovery is not confined to the manufacturing of burning-fluid and painters' oils; but I claim the several parts of the invention or discovery for all purposes for which the combinations may be found useful in the arts.

I am aware that kerosene has been used in an illuminating-fluid in which fusel-oil and camphene constituted the largest proportion or base of the composition, and in which the object of the invention was to render fusel-oil available as a burning-fluid by the commingling of camphene and a small proportion of kerosene. In my invention, however, the end in view is to render the earthy oil which constitute the base of the compositions better adapted than heretofore for illuminating and other purposes by treating or cutting them with fusel-oil or fusel-oil and alcohol. Therefore I do not broadly claim the use of fusel-oil or fusel-oil and alcohol except when combined with the earthy oils, substantially as hereinbefore set forth.

Having thus described my discovery and the best mode with which I am acquainted of practicing the same, I claim as my invention or discovery and desire to secure by Letters Patent—

1. The compound produced by the combination of the mineral or earthy oils with fusel-oil, in the manner and for the purpose substantially as herein set forth, said compound constituting a new manufacture.

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2. The compound produced by the combination of naphtha with alcohol and fusel-oil.

3. The heavy liquid obtained by treating the combination of petroleum or kerosene and fusel-oil with alcohol.

CHARLES N. TYLER.

Witnesses :

A. C. TYLER,

E. A. TYLER.

Messrs. J. E. Maynadier and C. Browne, for plaintiff in error.

The court charged the jury that the claim was confined to a compound composed of equal parts, in bulk, of the mineral oils used, and equal parts, in bulk, of fusel-oil, and to such other compounds of the mineral oils and fusel-oil in which the proportionate bulks of the two oils were the same substantially, and this without regard to the kind of mineral oil that was used.

It is respectfully submitted that this construction is erroneous; that the proportionate bulks specified are applicable only to the particular kind, grade or density of kerosene, and the particular kind of fusel-oil whose proportionate bulks in the compound are stated, and when any other grade or density of kerosene or any other of the mineral oils or any of the various grades of the other mineral oils or any other kind of fusel-oil are to be used, their bulks are to be determined by determining: 1, what bulk of the given mineral oil is necessary to give equivalent effects to a given bulk of the particular kind of kerosene whose proportionate bulk is stated; and, 2, what bulk of the given fusel-oil is necessary to give the equivalent effects to a given bulk of the particular kind of fusel-oil whose proportionate bulk is stated.

The court below seems to have felt obliged to construe the claims as for equal parts of naphtha and fusel-oil, because of the rule of law settled in *Wood v. Underhill*, 5

Argument of counsel.

How. 1 [4 Am. & Eng. 551], and the general rule that the patent is to be upheld if it can be reasonably done.

This construction, "although adopted in accordance with the rule that the patent is to be construed, if possible, so as to give the patentee the benefit of his invention, practically prevents the patentee from deriving any benefit from his invention, except as to the particular compound consisting of substantially equal parts of kerosene and crude fusil-oil; for a compound composed of equal parts of naphtha and crude fusel-oil is worthless as a burning-fluid, because of the large excess of fusel-oil."

The court below was in error in instructing the jury that the substantial samenesses or differences depended upon the slight or great variations in the proportions of the ingredients.

Winans v. Denmead, 15 How. 344 [6 Am. & Eng. 107].

The case of Allen v. Hunter, 6 McLean, 313, decides (what may be, perhaps, regarded as undoubted law) that when the compound complained of is composed of a substituted ingredient, "having the same qualities and producing the same result," it is an infringement. Under this rule it would seem beyond doubt that plaintiff would have recovered on his evidence in this case (as to all these oils being the same except in density, and that the bulk of naphtha to be used as a substitute for a given bulk of kerosene, and necessary to produce the same result, was well known) had naphtha not been mentioned in his specification, on the ground that seventy-two parts of naphtha was a well known substitute for twenty-eight parts of kerosene, having the qualities and producing the same result. But upon what principle can the fact that he has mentioned naphtha in his specification as a substitute for kerosene (thereby stating only what was perfectly well known) prevent his recovering against the use of a compound which is in law the same compound of which his patent purports to give him the monopoly?

Opinion of the court.

Mr. James B. Robb, for defendant in error.

The language used by the patentee in describing his invention and the manner of compounding the same, is full, clear and exact, in view of the construction adopted by the court below, but to give it the construction contended for by the plaintiff, the obvious intent of the terms used must be disregarded, and the same word must also be taken in different senses in the same sentence; that is, the word "quantity" when used in reference to fusel-oil, alcohol or kerosene, means measure; but when used in reference to naphtha or petroleum, it must be taken to mean weight, against the manifest intention of the patentee when the specification was drawn.

"Words are not to be distorted so as to affect what may be supposed to have been the intention of the one using them; but they are to have a reasonable construction connected with the sentence in which used."

Allen v. Hunter, 6 McLean, 307.

Mr. Justice GRIER, delivered the opinion of the court.

The plaintiff claims to have discovered a new compound substance, being a combination of fusel-oil with the mineral and earthy oils, which compound constitutes a burning-fluid, "by which term," he says, "I mean a liquid which will burn for the purpose of illumination without material smoke, in a lamp with a small solid wick, and without a chimney."

The first claim of his patent (the one which the defendant is charged to have infringed) is: "The compound produced by the combination of the mineral or earthy oils with fusel-oil in the manner and for the purpose substantially as herein set forth, said compound constituting a new manufacture."

The component parts of this new manufacture are described as "by *measure*, crude *fusel-oil one part*, kerosene *one part*." This combination, the patent states, may be varied by the substitution of naphtha or crude petro-

Opinion of the court.

leum in place of kerosene, or a part of the kerosene, by an *equal quantity* of naphtha or crude petroleum; (a) "the exact quantity of fusel-oil which is necessary to produce the most desirable compound must be determined *by experiment*."

Now, a machine which consists of a combination of devices is the subject of invention, and its effects may be calculated *a priori*; while a discovery of a new substance by means of chemical combinations of known materials is empirical, and discovered by experiment. Where patent is claimed for such a discovery, it should state the component parts of the new manufacture claimed with clearness and precision, and not leave the person attempting to use the discovery to find it out "by experiment." The law requires the applicant for a patent-right to deliver a written description of the manner and process of making and compounding his new discovered compound. The art is new and, therefore, persons cannot be presumed to be skilled in it or to anticipate the result of chemical combinations of elements not in daily use.

The defendants used a burning-fluid composed of naphtha seventy-two and fusel-oil twenty-eight parts; and *expert* chemists proved that seventy-two parts *in bulk* of naphtha was the *substantial equivalent* of twenty-eight parts of kerosene.

This term "*equivalent*," when speaking of machines, has a certain definite meaning, but when used with regard to the chemical action of such fluids as can be discovered only by experiment, it only means *equally good*. But while the specification of the patent suggests the substitution of naphtha for crude petroleum, it prescribes no other proportion than that of equal parts by measure. The explanation that the "kerosene must be replaced by an *equal quantity* of naphtha" does not alter the case:

The charge which the court gave is a clear and intelli-

(a) Wallace begins Opinion here, prefixing "The patent states that."

Notes and Citations.

gible statement of the principles of law which should govern the jury in making up their verdict. It said properly, that "whether one compound of given proportions is substantially the same as another compound varying in the proportions—whether they are substantially the same or substantially different—is a question of fact and for the jury."

Under this instruction the jury found a verdict for the defendants, with which the parties must be content. If the jury (*b*) have erred, the remedy is not in this court.

Judgment affirmed.

7 WALL. 330-331.

Notes :

1. Composition of matter.

Wood v. Underhill, 5 How. 1 [4 Am. & Eng. 551].

Hotchkiss v. Greenwood, 11 How. 248 [5 Am. & Eng. 240].

Cochrane v. Anilin Fabrik, 111 U. S. 239.

Product.

Wood Paper Patents, 23 Wall. 566.

Powder Co. v. Powder Works, 98 U. S. 126.

2. Sufficiency of description of a composition of matter.

Wood v. Underhill, 5 How. 1 [4 Am. & Eng. 551].

(*b*) Wallace adds "in finding for the defendants."

Notes and Citations.

3. Chemical equivalents.

Goodyear Dental Vulcanite Co. v. Davis, 102 U. S. 222.

4. Identity, when a question for jury.

Evans v. Eaton, 7 Wheat. 356 [4 Am. & Eng. 105].

Turrill v. Railroad, 1 Wall. 491 [7 Am. & Eng. 202.]

Bischoff v. Wethered, 9 Wall. 812. [p. 213 *post*].

Heald v. Rice, 104 U. S. 737.

Patent in suit:

No. 38,015. Tyler, C. N. March 24, 1863. Burning Fluid.

Cited:

IN CIRCUIT COURTS IN:

Lockwood v. Faber, February, 1886. 27 Fed. Rep. 63.

IN TEXT-BOOKS:

2 Abb. Pat. Law, 1886, p. 239.

Curtis on Pats., 4th ed., § 261 *a*.

Merwin on Pat. Inv't. 1883, pp. 65, 241.

Walker on Pats., 1883, pp. 78, 124, 268, 355.

Syllabus.

LEWIS MOORE, PLAINTIFF IN ERROR v. JAMES
MARSH, P. BEAVER, CHARLES C. SHORKLEY
AND ELISHA SHORKLEY*.

7 Wall., 515-523. Dec. Term, 1868.

[Bk. 19, L. ed. 37 ; 2 Whit. 180.]

Argued December 14, 1868. Decided January 4, 1869.

"Persons interested." Act 1836, sec. 14. *Right of action for damages subsequent to sale of exclusive right.*

1. Where, subsequent to the alleged infringement, but before the commencement of his suit, plaintiff, the original owner of the patent, assigned to a third party an undivided half of his interest, *held* in view of Act 1836, sec. 14, that he was a "person * * interested" competent to sue to recover the damages for such infringement. (p. 16.)
2. The word "interested," Act 1836, sec. 14, construed to mean that the right of action is given to the person or persons owning the exclusive right at the time the infringement is committed. (p. 20.)
3. Subsequent sale and transfer of the exclusive right in a patent are no bar to an action to recover damages for an infringement committed before such sale and transfer. (p. 20.)

[Citations in opinion of the court:]

Gayler v. Wilder, 10 How. 477 [5 Am. & Eng. 186]. p. 19.
Herbert v. Adams, 4 Mas. 15. p. 19.
Curtis Pat. 3d. ed. sec. 347. p. 19.
Whittemore v. Cutter, 1 Gall, 429. p. 19.
Woodworth v. Wilson, 4 How. 712 [4 Am. & Eng. 542]. p. 19.
Tyler v. Tuel, 6 Cranch. 324 [4 Am. & Eng. 1]. p. 19.
Potter v. Holland, 4 Blatch, 206, 238. p. 19.
Dean v. Mason, 20 How. 198. [6 Am. & Eng. 361]. p. 21.
Kilborn v. Rewee, 8 Gray, 415. p. 21.
1 Hilliard, on T. 521. p. 21.
Eades v. Harris, 1 Younge & Collier, 230. p. 21.

* See Explanation of Notes, page III.

Argument of counsel.

In error to the Circuit Court of the United States for the Western District of Pennsylvania.

This action was brought in the court below by the plaintiff in error, to recover damages for infringement of a certain patent. Issue having been joined by a demurrer to the defendant's plea and judgment thereon given for defendants, the plaintiff sued out this writ of error.

A further statement of the case appears in the opinion of the court.

Mr. Samuel S. Fisher, for plaintiff in error.

Joint patentees or assignees of a patent are tenants in common.

Pitts v. Hall, 3 Blatchf. 201 ; Vose v. Singer, 4 Allen, 226 ; Mathers v. Green, 1 Ch. App. Cas. 29.

Tenants in common cannot join to recover damages for injury to an estate which, at the time of the injury was the sole property of one of them. 1 Chit. Pl. 64.

In the Act of July 4, 1836, sec. 14, the words "name of the person interested," do not mean persons interested in the patent at the time of bringing the suit ; but persons interested in the patent at the time when the cause of action accrued. See Dean v. Mason, 20 How. 198 [6 Am. & Eng. 361].

An assignment of a patent or of an interest therein does not carry with it a right to unliquidated damages, previously accrued for the infringement thereof.

Messrs. H. Baldwin, Jr., and W. Bakewell, for defendants.

That the words "the person or persons interested, whether as patentees, assignees or grantees of the exclusive right within and throughout a specified part of the United States," in the 14th section, which specifies in whose name the suit should be brought, mean interested in the patent, and not interested in the damages is manifest :

1. By comparing this with the 11th section Act July 4, 1836.

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2. By the fact that licensees are excluded, and yet they are frequently the only parties interested in the damages, while the plaintiff, as patentee, assignee or grantee of an exclusive right, has no interest in the damages.

3. From the decisions of this court and of circuit courts.

Gayler v. Wilder, 10 How. 493 [5 Am. & Eng. 188]; Washburn v. Gould, 3 Story, 131; Suydam v. Day, 2 Blatchf. 23; Goodyear v. McBurney, 3 Blatchf. 32; Blanchard v. Eldridge, 1 Wall., Jr. 340.

A patent is assignable only by statute.

See Blanchard v. Eldridge, 1 Wall., Jr. 337; Brooks v. Byam, 2 Story, 525.

Claims growing out of and adhering to property may pass by assignment of the property.

Comegys v. Vasse, 1 Pet. 213; Randal v. Cochran, 1 Ves. 98.

Mr. Justice CLIFFORD delivered the opinion of the court.

Viewed in the light of the admitted facts, the only question in the case is: whether the assignment by the plaintiff to a third person of an undivided half of the right, title, and interest secured to him by his letters patent, subsequent to the alleged infringement, but before the commencement of his suit, is a bar to his claim to recover damages for such infringement.

Letters patent were granted to the plaintiff on the 18th of April, 1848, for a certain new and useful improvement in grain drills, in which it is alleged that he is the original and first inventor of the improvement. Original patent was for the term of fourteen years, but it was subsequently extended by the Commissioner of Patents for the term of seven years from and after the expiration of the original term. Alleged defects existed in the original specification and, in consequence thereof, the plaintiff on the 3d of February, 1863, surrendered the letters patent, and the same were reissued to him in three new patents for separate and

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distinct parts of the invention for the unexpired portion of the original and extended terms of the patent.

Damages are claimed of the defendants for infringing the reissued letters patent from the day of the reissue to the 24th of February, 1865, as more fully set forth in the declaration.

Pleas to the declaration were subsequently filed by the defendants, and the record shows that they gave due notice of certain special defenses which they proposed to offer in evidence under the general issue, in pursuance of the Act of Congress in such case made and provided. Before the day for the trial came, however, the parties filed an agreement waiving a jury and submitting the cause to the court, stipulating that the decision of the court should have the same effect as the verdict of a jury. Leave to amend was subsequently granted by the court to both parties.

Purport of the amendment to the declaration was, that the plaintiff was the sole owner of the letters patent for the county of Union, in the State of Pennsylvania, from the date of the reissued letters patent to the 24th of February, 1865, and that the defendants had infringed the same throughout that period, by making and using the invention, and vending the same to others to be used without his license or consent.

Defendants filed another special plea, in which they alleged that the plaintiff, when he commenced his suit, was not the owner of the exclusive right secured in the reissued letters patent within any part of the United States; that in certain States and districts he had parted with all his interest in the patent; and that, on the said 24th of February, he assigned and transferred an undivided half of all the residue of his right, title and interest in the same, and, therefore, that the plaintiff had no right to bring this action in his own name against the defendants. Plaintiff demurred to the plea, and the defendants joined in demurrer. Parties were heard, and the court rendered judgment for the defendants, and the plaintiff sued out this writ of error.

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Conceded fact is, that the plaintiff was the exclusive owner of the patent in the territorial district where the alleged infringement was committed, throughout the entire period of the infringement, as alleged in the declaration. Express allegation of the declaration is to that effect, and as the plea is in avoidance and contains no denial of the matters alleged in the declaration, they must be considered, as admitted unless the matters alleged in the special plea are a sufficient answer to the action.

Briefly stated, the matter alleged in the avoidance of the right of the plaintiff to maintain the suit is, that he, before he commenced the suit but subsequent to the infringement, sold and assigned an undivided half of his patent for the territorial district where the infringement was committed, to a third person.

Patentees have secured to them by virtue of the letters patent granted to them, the full and exclusive right and liberty, for a prescribed term, "of making and using, and vending to others to be used," their respective inventions or discoveries; and whenever their rights, as thus defined, are invaded by others, they are entitled to an action on the case to recover actual damages as compensation for the injury. 5 Stat. at L. 123, sec. 14.

Such damages may be recovered by action on the case in any circuit court of competent jurisdiction, to be brought in the name or names of the person or persons interested, whether as patentees, assignees, or as grantees of the exclusive right, as already defined, within and throughout a specified part of the United States. 5 Stat. at L. 123, sec. 14.

Assignees and grantees, as well as the patentee, may, under some circumstances, maintain an action on the case for an infringement, in their own name, as appears by the express words of the Act of Congress. An assignee is one who holds, by a valid assignment in writing, the whole interest of a patent, or any undivided part of such whole in-

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terest, throughout the United States. 5 Stat. at L. 121, sec. 11.

Where the patentee has assigned his whole interest, either before or after the patent is issued, the action must be brought in the name of the assignee, because he alone was interested in the patent at the time the infringement took place; but where the assignment is of an undivided part of the patent, the action should be brought for every infringement committed subsequent to the assignment, in the joint names of the patentee and assignee, as representing the entire interest. *Herbert v. Adams*, 4 Mas. 15; *Curtis, Pat.* (3d ed.) sec. 347; *Gayler v. Wilder*, 10 How. 477 [5 Am. & Eng. 188]; *Whittemore v. Cutter*, 1 Gall. 430; *Woodworth v. Wilson*, 4 How. 712 [4 Am. & Eng. 542].

Settled view at one time was, that the grantee of a territorial right for a particular district, could not bring an action on the patent in his own name; but the Act of Congress having made him a party interested in the patent, it is now equally well settled that he may sue in his own name for invasion of the patent in that territorial district, as no one else is injured by any such infringement. *Tyler v. Tuel*, 6 Cranch. 324 [4 Am. & Eng. 1]; *Gayler v. Wilder*, 10 How. 477 [5 Am. & Eng. 188]; *Curtis, Pat.* sec. 346.

Both assignees and grantees have an interest in the patent, but the terms are not synonymous, as used in the patent law. *Potter v. Holland*, 4 Blatchf. 157 (a).

Grants, as well as assignments, must be in writing, and they must convey the exclusive right, under the patent, to make and use, and vend to others to be used, the thing patented, within and throughout some specified district or portion of the United States, and such right must be exclusive of the patentee, as well as of all others except the grantee. Suits for infringement in such districts, if committed subsequent to the grant, can only be brought in the name of the grantee, as it is clear that no one can main-

(a) Wallace substitutes "Law's Digest."

Opinion of the court.

tain such an action until his rights have been invaded, nor until he is interested in the damages to be recovered.

Alleged infringement in this case was committed in the county of Union, in the State of Pennsylvania, and the admitted fact is, that the plaintiff, throughout the entire period of the infringement, was the sole owner of the exclusive right to make and use, and grant to others to make and use, the thing patented in that territorial district, by virtue of his original title as patentee, having never assigned or granted any right, title or interest, within that county. 5 Stat. at L. 121, sec. 11.

Grant that these views are correct, and it is clear that unless the plaintiff can maintain the action there can be no redress, as it is too plain for argument, that a subsequent assignee or grantee can neither maintain an action in his own name, nor be joined with the patentee in maintaining it for any infringement of the exclusive right committed before he became interested in the patent. Undoubtedly the assignee *thereafter* stands in the place of the patentee, both as to right under the patent and future responsibility; but it is a great mistake to suppose that the assignment of a patent carries with it a transfer of the right to damages for an infringement committed before such assignment.

Comment upon the cases cited, as supporting this proposition, is unnecessary, as it is clear to a demonstration that they give it no countenance whatever. Such a proposition finds no support in any decided case, nor in the Act of Congress upon the subject.

True meaning of the word "interested," as employed in the last clause of the 14th section of the Patent Act, when properly understood and applied, is, that the right of action is given to the person or persons owning the exclusive right at the time the infringement is committed. Subsequent sale and transfer of the exclusive right are no bar to an action to recover damages for an infringement committed before such sale and transfer.

Notes and Citations.

The reason for the rule is, that the assignee or grantee is not interested in the damages for any infringement committed before the sale and transfer of the patent. Correct interpretation of the words "person or persons interested" is, that the words mean the person or persons interested in the patent at the time when the infringement was committed, which is the cause of action for which the damages may be recovered. *Dean v. Mason*, 20 How. 198 [6 Am. & Eng. 361].

Assignment was made in that case after suit was brought, but before the final decree. Proof of the fact was offered, and a motion, filed to dismiss the case, but the court overruled the motion, because the assignees could have no interest in a suit for an infringement committed before their right accrued. *Kilborn v. Rewee*, 8 Gray, 415; 1 Hilliard on Tr. 521; *Eades v. Harris*, 1 Younge & Collier. 230.

Attempt is made to distinguish the case at bar from the rule established in those cases, but, in the view of this court without success.

Judgment reversed. New venire ordered.

7 WALL. 522-523

Notes:

1. Act 1790, sec. 4; Act 1793, sec. 5; Act 1800, sec. 3; Act 1836, sec. 14; Act 1870, sec. 59; R. S. sec. 4919.
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Who may sue for infringement.

Tyler v. Tuel, 6 Cranch. 324 [4 Am. & Eng. 1].

Wilson v. Rousseau, 4 How. 646 [4 Am. & Eng. 436].

Gayler v. Wilder, 10 How. 477 [5 Am. & Eng. 188].

Littlefield v. Perry, 21 Wall. 205.

Notes and Citations.

Patents in Suit :

No. 5522. Moore, L. April, 1848. Seed Drill. Reissues
Nos. 1393, 1394 and 1395, February 4, 1863.

Cited :**IN CIRCUIT COURTS IN :**

Dibble v. Augur, December, 1869. 7 Blatch. 86.
Boomer v. United Power Press Co., August, 1875. 13 Blatch. 107 ;
2 Ban. & Ard. 106.
Gordon v. Anthony, May, 1879. 16 Blatch. 234 ; 4 Ban. & Ard. 248.
Spring v. Domestic Sewing Machine Co., August, 1882. 13 Fed.
Rep. 446 ; 14 Reporter, 711.
Adams v. Bellaire Stamping Co., October, 1885. 25 Fed. Rep. 270 ;
33 O. G. 623.
Bogart v. Hinds, November, 1885. 25 Fed. Rep. 484 ; 33 O. G.
1268.
May v. Juneau, February, 1887. 30 Fed. Rep. 241.
May v. Saginaw Co., October, 1887. 32 Fed. Rep. 629.
Babcock & Wilcox Co. v. Pioneer Iron Works, March, 1888. 43 O.
G. 756 ; 34 Fed. Rep. 338.

IN TEXT BOOKS :

2 Abb. Pat. Law, 1886, pp. 100, 282, 285.
Walker on Pats., 1883, pp. 199, 207, 288, 291.

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Syllabus.

THE AGAWAM WOOLEN COMPANY, APPELLANT,
v. EBEN D. JORDAN.*

7 Wall. 583-610. Dec. Term, 1868.

[Bk. 19, L. ed. 177; 2 Whit. 187.]

Argued February 10-16, 1869. Decided March 1, 1869.

Statutory notice of special matter. Letters patent prima facie evidence of inventorship. Fraud in obtaining patent. Particular patent examined. Inventor and employé. Suggestions. Delay for purpose of experiment not an abandonment. Recital in patent. Recovery prior to reissue.

1. Where the answer denied that the assignor of complainant was the first and original inventor of the improvement, *held* that the defense of previous invention, knowledge and use, requiring the statutory thirty days' notice of special matter giving names and places of residence of those who are to prove such prior knowledge (act 1836, sec. 15), was not admissible thereunder; but it was admitted under another part of the answer. (p. 48.)
2. The rule of law is that letters patent afford a *prima facie* presumption that patentee is the original and first inventor of what is therein described as his improvement. (p. 49.)
3. A charge that the original patentee in this case fraudulently and surreptitiously obtained the patent for that which he knew was invented by another, unaccompanied by the further allegation that the alleged first inventor was at the time using reasonable diligence in adapting and perfecting the invention, is not sufficient to defeat the patent, and constitutes no defense to the charge of infringement. (p. 49.)
4. Reissued letters patent No. 1714. J. Goulding, June 28, 1864. Machine for Manufacture of Wool and other Fibrous Material, (original granted December 15, 1826), examined. (p. 50.)
5. Whosoever first perfects a machine is entitled to the patent, and is the real inventor, although others may have previously had the idea and made some experiments towards putting it in practice. (p. 55.)

* See Explanation of Notes, page III.

Syllabus.

6. Persons employed, as much as employers, are entitled to their own independent inventions; but where the employer has conceived the plan of an invention and is engaged in experiments to perfect it, no suggestions from an employé not amounting to a new method and arrangement which, in itself, is a complete invention, is sufficient to deprive the employer of the exclusive property in the perfected improvement. (p. 55.)
7. Where the claims of the reissued letters patent No. 1714, J. Goulding, June 28, 1864, Machine for Manufacture of Wool, were construed to be for the several combinations described, and the defense was that patentee was not the original and first inventor, but had fraudulently obtained it from W., his employee, who, it appeared, had made and suggested the use of what proved to be a useful auxiliary part of the entire invention (the spool and drum), *held* that W.'s work was not the invention described in the patent, nor such a material part of the same as to constitute W. the inventor or the joint-inventor of the improvement, and was no defense to the charge of infringement. (p. 56.)
8. Unreliable testimony will not invalidate letters patent. (p. 59.)
9. Where respondents alleged in their answer that the invention at the time the application was filed, and for a long time before, had been on sale and in public use, without more, it was held not a good defense against the charge of infringement, because of failure to state that it was for more than two years prior to the date of filing the application. (p. 60.)
10. Mere forbearance to apply for a patent during the progress of experiments, and until the party has perfected his invention and tested its value by actual practice, affords no grounds for any presumption of abandonment. (p. 61.)
11. Where patentee filed his application before the middle of November, 1826, was constantly engaged up to that time in perfecting his improvement and in making the necessary preparations to apply for a patent, *held* that it raised no presumption of abandonment. (p. 61.)
12. Where the patent granted J. Goulding, December 15, 1826, for Machine for Manufacture of Wool, was extended by special act, the extension being made subject in express terms to the

Syllabus.

proviso contained in the act, *held* that reissue No. 1714, June 28, 1864, of the extended patent was not void for failure to recite the terms of the proviso. (p. 61.)

13. Where a proviso annexed to an extension granted by special act protected from liability those using the invention at the time of the extension, and it was subsequently reissued, and suit brought on the reissue, an allegation that the machinery was in use before the patent in this case was granted, *held* no defence to the infringement. (p. 62.)
14. Complainants cannot recover damages for any infringement anterior to the date of the reissued patent sued on. (p. 62.)

[Citations in opinion of the court:]

- Teese v. Huntingdon, 23 How. 2 [7 Am. & Eng. 72]. p. 49.
 Wilton v. Railroad, 1 Wall. Jr. 195. p. 49.
 Reed v. Cutter, 1 Story (C. C.) 590. pp. 50, 56.
 Pitts v. Hall, 2 Blatch. (C. C.) 229. pp. 50, 56.
 Union Sugar Refinery v. Matthiessen, 2 Fish. 600. p. 50.
 Washburn v. Gould, 3 Story (C. C.) 122. p. 55.
 Allen v. Rawson, 1 Man., G. & Scott, 551. p. 56.
 Alden v. Dewey, 1 Story (C. C.) 336. p. 56.
 Minter's Patent, 1 Web. P. C, 126, note c. p. 56.
 Curtis' Pat. (8d ed.) 99. p. 56.
 McClurg v. Kingsland, 1 How. 202 [4 Am. & Eng. 382]. p. 56.
 Stimpson v. Railroad Co., 4 How. 380 [4 Am. & Eng. 398]. p. 60.
 Foster v. Goddard, 1 Black. 506. p. 60.
 Kendall v. Winsor, 21 How. 322 [7 Am. & Eng. 1]. p. 61.
 Pennock v. Dialogue, 2 Pet. 1 [4 Am. & Eng. 217]. p. 61.

Appeal from the Circuit Court of the United States for the District of Massachusetts.

The bill in this case was filed in the court below by the appellee, to recover damages for an alleged infringement of certain letters patent, and for an injunction and for other relief.

The court below having entered a decree in favor of the complainant, the respondent took an appeal to this court.

The facts of the case are fully stated in the opinion of the court.

The following is the letters patent referred to :

J. Goulding.
Carding Mach.

N^o 1,714

Reissued Jun 28, 1864.

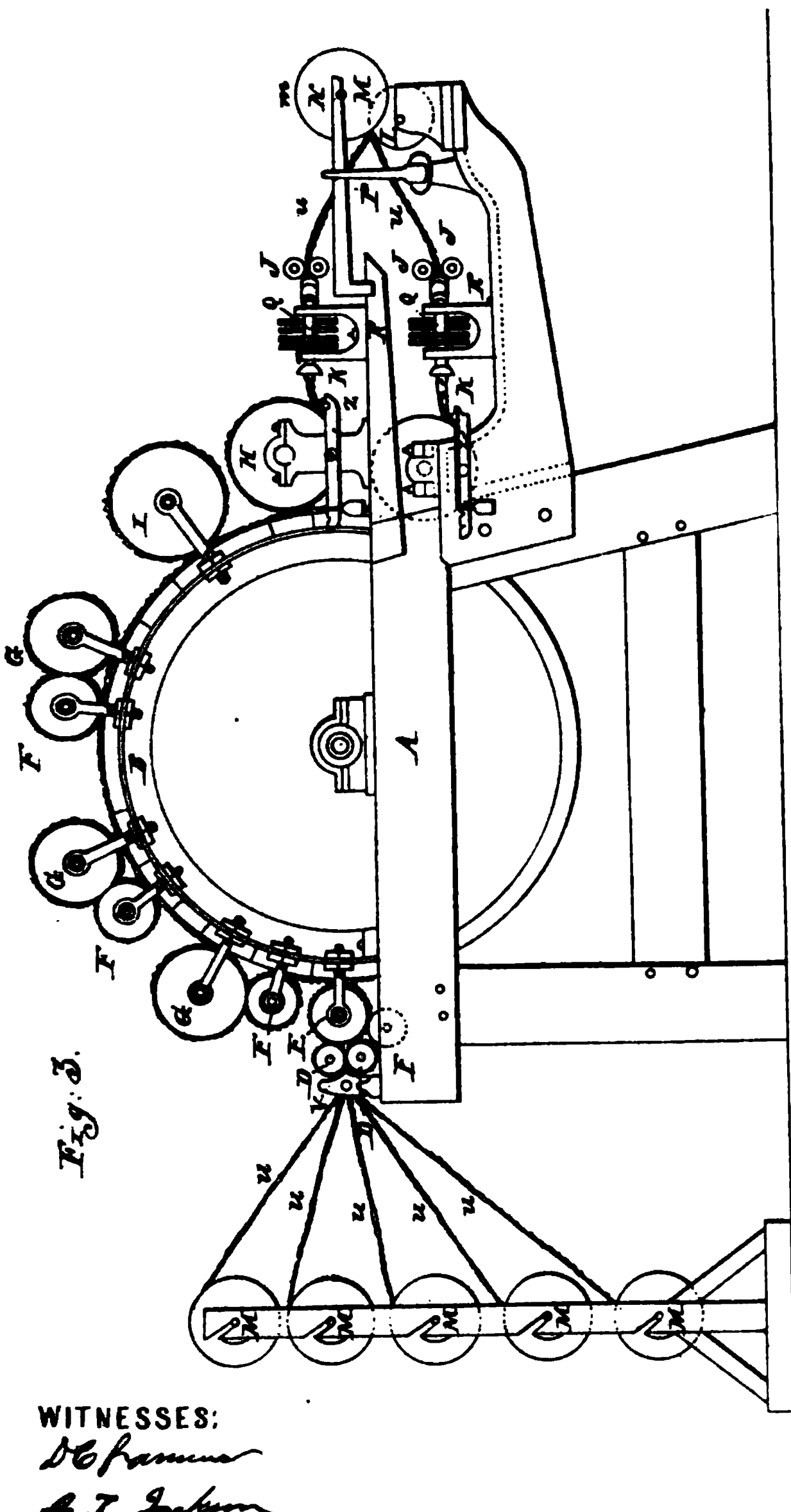


Fig. 3.

WITNESSES:
D. C. Francis
G. J. Jackson

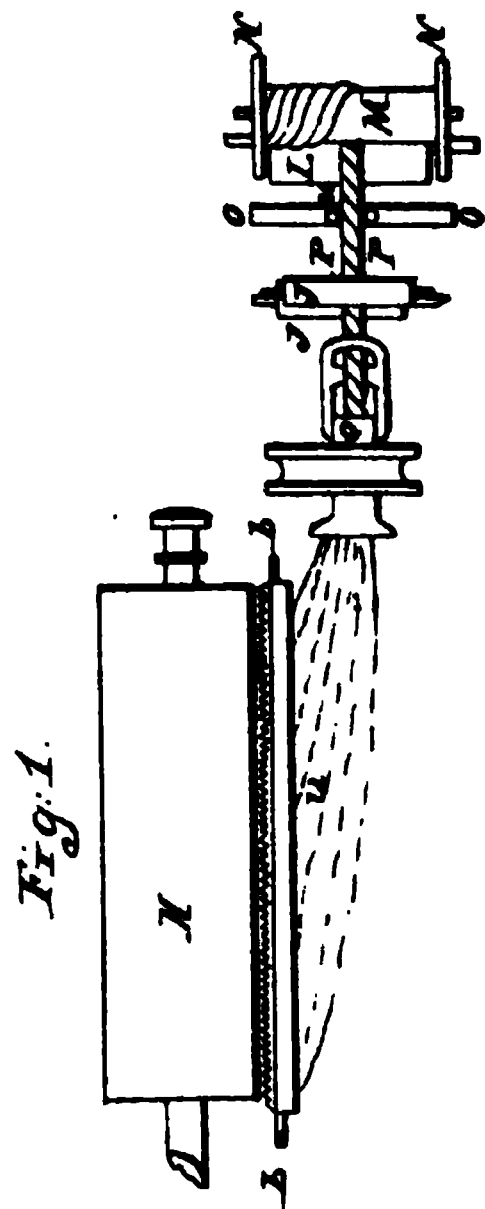


Fig. 1.

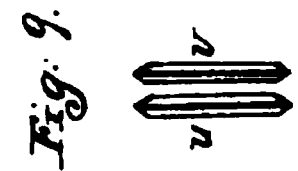


Fig. 9.

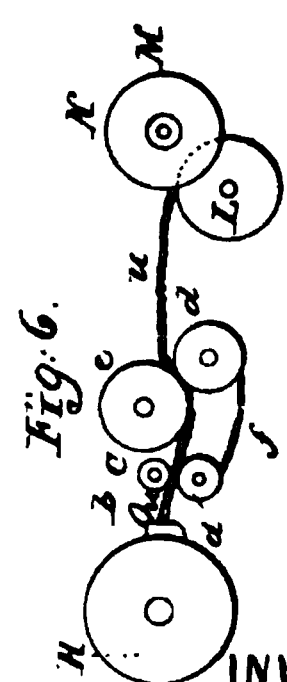


Fig. 6.

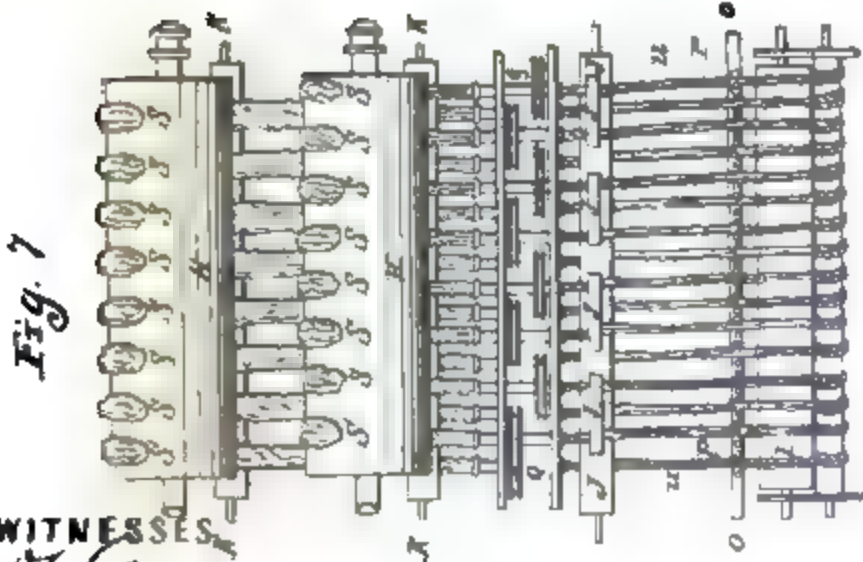
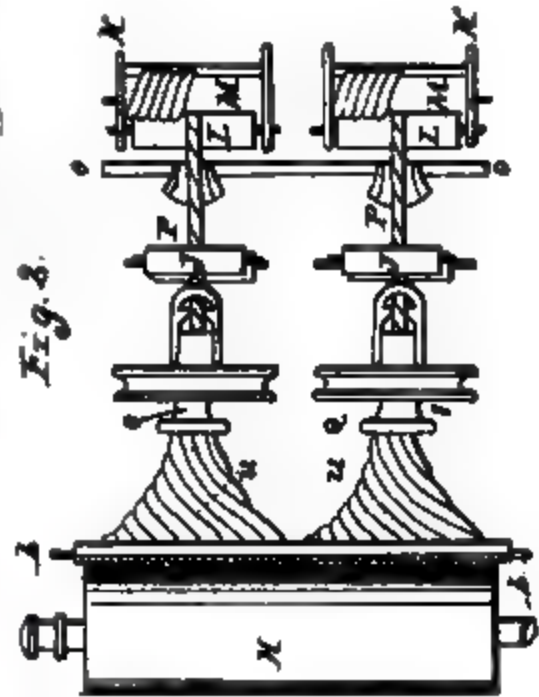
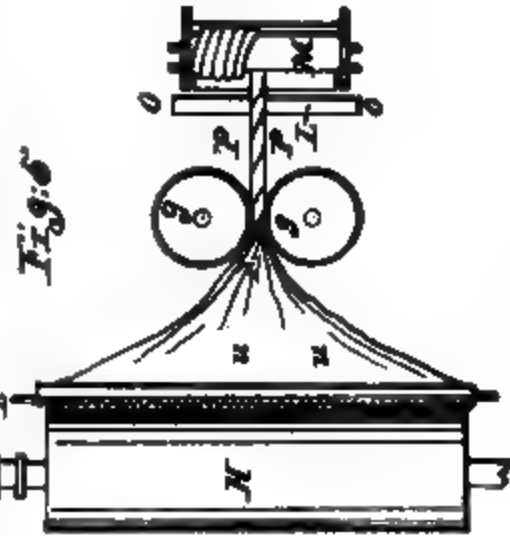
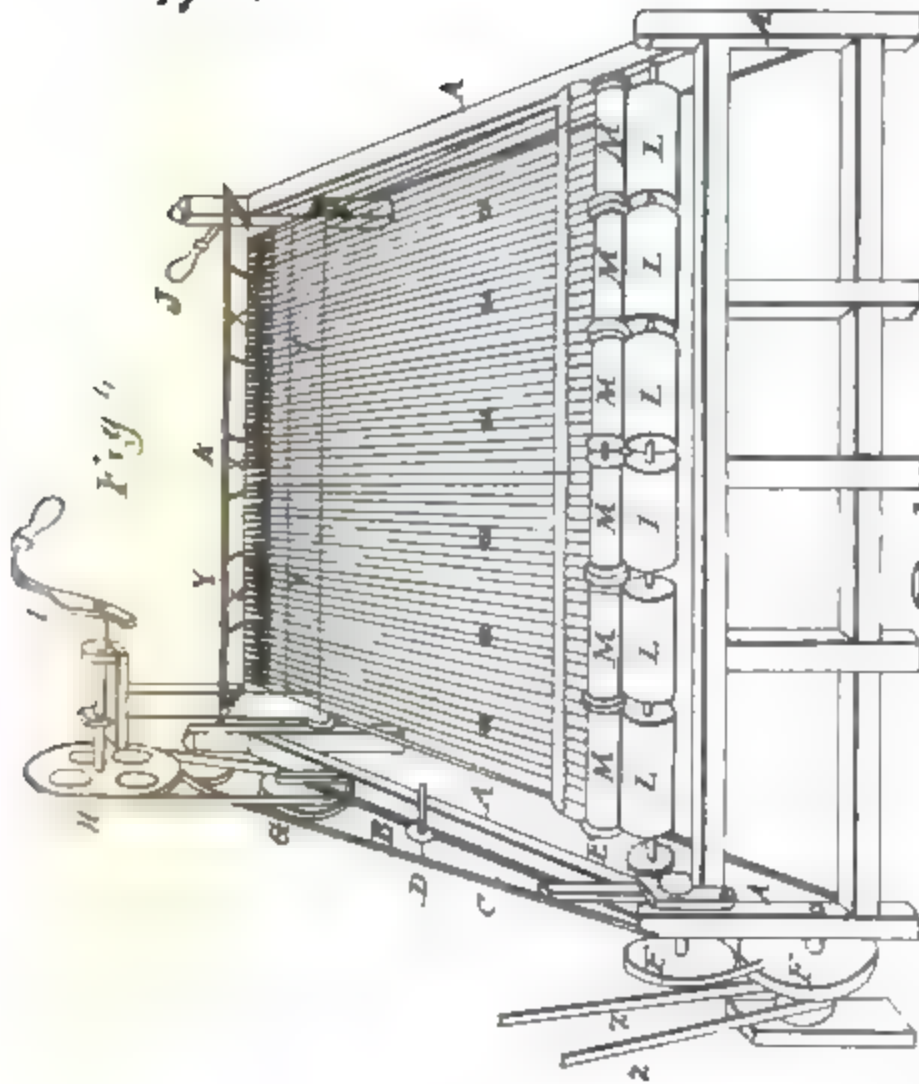
INVENTOR:
John Goulding per
W. B. Ransom & Co.

Sheet 2, 2 Sheets

J. Goulding Carding Mach

No 1,714.

Reissued Jun 28, 1864



WITNESSES
D. H. Brown
C. T. Jackson

INVENTOR:
John Goulding per
H. B. Brown
att'y

Statement of the case.

JOHN GOULDING, OF WORCESTER, ASSIGNOR,
BY MESNE ASSIGNMENTS, TO EBEN D. JORDAN,
OF BOSTON, MASSACHUSETTS.

IMPROVEMENT IN MACHINERY FOR THE MANUFACTURE OF
WOOL AND OTHER FIBROUS MATERIAL.

Specifications forming part of Letters Patent dated December 15,
1826; Reissue dated July 29, 1836; extended August 30, 1862;
Reissue No. 1,714, dated June 30, 1864.

To all whom it may concern :

Be it known that I, John Goulding, of Worcester, in the county of Worcester, in the Commonwealth of Massachusetts, have invented, constructed, and applied to use a new and useful improvement in the mode of manufacturing wool or other fibrous materials, for which the Letters Patent of the United States of America were granted to me, bearing date on the 15th day of December, in the year of our Lord 1826, which Letters Patent were surrendered and reissued on the 29th day of July, A. D. 1836, and were extended by the Commissioner of Patents on the 30th day of August, A. D. 1862, and the specification thereto annexed, through inadvertence and mistake, not being an exact, full, and precise specification of the invention which the said Goulding claims as his own, and for which he desired the said Letters Patent should be issued, and there being reason to believe that said Letters Patent are inoperative and invalid by reason that the terms and conditions prescribed by the act of Congress, in such case made and provided, have not by such inadvertence and mistake been complied with on the part of the said Goulding, now, therefore, I, the said Goulding, in conformity with the provisions of the act of Congress in such case made and provided, have surrendered the said Letters Patent, and I do now hereby declare that the following contains a full and correct description of the invention which I claim as my own, set forth and specified in those full and exact terms in

Statement of the case.

which it should have been in the specification upon which said Letters Patent were reissued and extended. The more fully to point out said improvement and invention, it is necessary to refer to parts of the machinery which I do not claim, and to the drawings which accompany and are to be considered part of this description and specification.

Fig. 1 represents one of the delivering card-rollers, H, of the first carding-machine, and which is covered all over with a spiral fillet of wire cloth, as usual in such machines.

The great cylinder of the machine is to be regularly fed by means of the common feeding-cloth, upon which a certain weight of wool, cotton, hemp, or other fibrous material, is spread uniformly over a certain space, in the well-known and accustomed manner.

I take away the sheet of carded material, *u*, previously freed from the delivering card-rollers, H, by means of the combs, *b b*, either laterally to the right or left, by means of two delivering rollers (shown at J J) through the turning tube or pipe, Q, to which a slow rotary movement is given by means of a band passing from a drum actuated by the machine operating upon the pulley affixed to the tube. To the mouth of the tube a loop of brass or iron wire is affixed, having also a bar of wire across it, over which the roving or sliver, after being passed through the tube, is laid, and then passed underneath the loop, in the manner shown. The roving or sliver in passing through the tube is condensed or formed into a loosely combined cylinder, which is guided between the drawing-rollers, J J, and thence passed around the bobbin, M, which is retained by means of its larger ends, N N, and its axis upon the periphery of the drum, L, upon which it rests and partakes of the rotary movement communicated to that drum by the machinery.

The roving or sliver may be evenly wound upon the bobbin M either by carrying it and the drum L backward and forward, or by passing it between guides, P P, affixed to

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the bar, O, to which a similar lateral movement is communicated, as will be described.

The apparatus represented in Fig. 2 may also be used in front of the delivering card-roller, H. In this apparatus the two carded sheets, *u u*, after being taken off from the delivering card-roller, H, by the comb, *b b*, are then passed straight through the rotary tubes, Q Q, where, becoming rounded or condensed, they are received between the drawing-rollers, J J, and put through the guide pins, P P, and finally wound upon the bobbins, M M, in the manner before described. The rovings, thus prepared, condensed, drawn off, and wound up by the first carding machine and the apparatus combined therewith for condensing, drawing, and winding, as before and hereinafter described, are then to be placed in a frame or creel similar to that shown in Fig. 3 of the drawings, and to be passed through the second carding-machine, being guided into it between dividing-pins.

In the second carding process it is expedient that twenty, at least, of the bobbins, M M, filled with rovings or slivers from the first carding-machine, should be passed at once through the second machine, if of two feet wide, they being equally distributed along it at the feeding. If they are to be divided into two or more rovings or slivers, then an upright angular block of wood, similar to those shown in Fig. 9, but the breadth of an inch at the broadest end, must be placed at each division, to maintain a similar separation throughout the carding operation.

The wool or other material is taken away from the carding-machine in a fleece or sheet, as shown at U, Fig. 1, where it is seen in its progress toward the conical tube Q and the bobbins M, upon which it is finally wound after receiving a counter-twist or condensation by the revolution of the tube, Q, or by rollers, *g g*, Fig. 5, or by other similar apparatus.

The sliver, slubbing, or roving, whether consisting of one or more strands, is drawn off, condensed, and wound upon

Statement of the case.

the bobbins upon the principle represented in Figs. 1, 2, 3, 5, 6, and 7, and herein described.

The strands in the second carding operation, as before explained, are fed to the card from any requisite number of spools, as at M M, *u u*, Fig. 3, which exhibits the mode of feeding to the third carding-machine and differs in the part marked V from that used in combination with the second carding-machine, the strands being separated and distributed in the second carding operation by means of wire pins or similar apparatus to guide them to their proper places along the card.

The slivers or rovings prepared by the second carding-machine and the apparatus combined therewith are then to be passed through the third carding-machine, which is exhibited in a side elevation, Fig. 3.

A, the machine frame, is shown as being made of wood, but it may be also made of cast-iron. B is the arch which carries the bearings of the carding cylinders, G G and G, and clearing-rollers, F F, &c. ; C, the great or main carding-cylinder ; D D, the two feeding rollers, covered with ribbons of wire card (or channeled or fluted rollers may be employed instead of them), which deliver the rovings or slivers to the receiving card-cylinder, E, from which they are transferred upon the great or main carding-cylinder, C. The lower small cylinder, F, covered with wire cards, is intended to clear the feeding-rollers D D of any loose fibres which may adhere to it, and being also in slight contact with the receiving-cylinder, E, it transports to it those loose fibres. The small cylinder, I, covered with wire card, serves partially to disengage and loosen the fibrous material from the surface of the great cylinder, C, and to prepare it for being more readily taken off by the delivering-rollers, H H. The upper card-cylinders, F F, &c., are for the purpose of clearing the working-cylinders, G G, &c., from the wool, cotton, or other fibrous material, and again transferring it to the main cylinder, C.

In the third carding operation the strands are fed to the

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card and conducted so as to cause the sliver, slubbing, or roving to be even and of a uniform size when taken from the delivering card, being carried through and delivered from the cards separately from each other by means of blocks, *v v*.

The bobbins, *M M*, filled with the rovings or slivers from the second carding-machine, are to be placed in a frame, as shown, and each roving or sliver must be passed through a division made in a number of upright wood or metal blocks affixed upon a rail, and one of which is shown at *v*. The blocks must be made broader in front, next to the rollers, than behind, as shown in Fig. 9, which represents the plan of two of them, and the intervals between them must be narrower than the blocks, in the proportion of three to five, or thereabout, so that each roving or sliver may preserve its proper situation upon the main cylinder and the working-cards, without mingling with those next adjacent to it during the operation of carding, and finally be received in its place upon the delivering cards, *H*.

The two delivering-cylinders, *H H*, being placed one above the other, are each furnished with fillets of card, and alternate spaces between them left unclothed with card, in a similar manner to that shown in Fig. 7, which is a plan of the two delivering-cards, *H H*, &c., and the circular strips or fillets of wire card, *S S*, around them, the fillets on the under delivering-card being so placed as to correspond with the spaces left empty upon the uppermost one.

Instead of taking off the carded materials by means of a comb, as described in the references to Figs. 1 and 2, I can remove them from the delivering-cylinders, *H H*, by means of the rotary action of the tubes, *Q Q*, &c., upon them, which, gathering the filaments delivered from each fillet of card around the cylinders, *H H*, form them into a continuous and loosely coherent roving or sliver, *U*, which is drawn by the action of the rollers, *J J*, through which it is passed, being guided between upright pins (shown at *P*) and wound upon the bobbin, *M*, in the manner already described. In

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further aid of the rotary action of the tubes, Q Q, &c., I can also employ the two plain rollers, K K, which are lightly held or pressed against the surfaces of the delivering-rollers, H H, by the action of weights hung upon the opposite ends of levers which support the rollers, K K. At R R are shown the supports or carriages in which the tubes Q Q turn.

The fibres of the rovings or slivers are apt to wind around the drawing rollers, J J, &c. In order to prevent this evil it is well to give the uppermost of each pair of rollers a slight degree of lateral motion backward and forward so as to cross their circular motion, and which lateral movement may be effected in various ways by the machinery not necessary to be described here.

The smaller the rovings or slivers become, so much the more will they require to be twisted or condensed by the action of the revolving tubes, Q Q, upon them in order to give them a sufficient degree of coherence.

The guides, P P, of the third carding-machine must have a backward and forward lateral motion communicated to them either by a heart-movement, or in any other fit and proper manner, so as to lay the rovings or slivers regularly side by side, each within its own proper limits.

The rovings or slivers being drawn forward by the rollers, J J, &c., also pass through the guiders, P P, and are wound upon the long bobbin, M, actuated by drums, L L.

The sliver, slubbing, or roving is twisted or condensed while it is leaving or being delivered from the finishing-cards preparatory to spinning. This twisting admits of the gathering the sliver without the use of the comb or doffer. The twist may be produced by the sliver or roving being passed through tubes, as shown at Q Q, Figs. 2, 3, and 7, or by being passed between pulleys or bands, or other similar means. The sliver is condensed by means of the apparatus shown in Fig. 6 as a substitute for the twisting process.

In case of carding long wool, where it is desirable to keep

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the fibres straight and smooth—as in the manufacture of worsted, for instance—the wool must be taken off the delivering-card, H, Fig. 5, by means of the comb, *b*. It then passes between the two vertical rollers, *g' g'*, which are covered with leather, and have each a slow, alternating, upward and downward movement communicated to them by the machinery, and which, together with the rotary movement of the rollers, draws forward, gathers up, and condenses the carded sheet of wool, U. It is then guided between the pins, P P, to which the lateral movement is given, as before described, and wound upon the bobbin, M. This operation is equally proper for cotton or other fibrous materials, when it is desirable to keep the fibres straight and smooth. In order to render the wool more pliant, it may be heated or moistened by steam or hot water in this latter process.

Another method of drawing forward, condensing, and gathering all descriptions of fibrous substances, after carding them, is seen in an end view at Fig. 6, where H is the delivering card cylinder *b*; the comb which removes the carded material from the cylinder, H, and which is then passed underneath the small plain roller, C, which is covered with leather, and under the roller, *e*, which is also covered with leather, and to both these rollers, *c* and *e*, a lateral backward and forward movement is given by the machinery, and which varies in extent according to the coarseness or fineness of the carded sliver or roving. The rollers, *c* and *e*, also receive a rotary movement from the endless web strap or band of leather, *f*, and which extends the whole width of the cards and revolves round the rollers, *d d*, to one of which a rotary movement is communicated by the wheel work of the machine. The transverse rubbing action of the rollers, *c* and *e*, rounds and condenses the fibres of the carded materials, U U, which are afterward wound upon the bobbin, M, as before mentioned.

The rotary motion of the delivering cards, H H, of the drawing-rollers, J J, and the drums, L L, in all the machines described, must exactly coincide with the nature of the

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material operated upon, so that the rollers, J J, shall draw it along as fast as it is freed from the delivering-cards, H H, and the drum, L L, wind it upon the bobbins, M M, regularly and with proper degree of extension, without overstretching it. Drums, L L, actuated by the machinery, may also be used in unwinding the rovings or slivers from the bobbins, M M, in all cases where the rovings or slivers are too weak to bear drawing off from the bobbins without such help, and whether such slivers or rovings have been made by the machinery herein described, or by other method.

It should be noticed that the bobbins, M M, upon which the rovings from the third carder are wound are long enough to receive several rovings, and also that all the rovings are condensed, drawn, and wound after they pass from the carding-machines, and that the winding is invariably performed by a drum acting upon the surface of the roving being wound, thus securing uniformity of speed of winding.

It should also be noticed that the mode of feeding the second and third carders requires the use of bobbins to support the rovings to be fed, either revolving by the drag of the carding-machine on the rovings, or being revolved by drums actuated by proper machinery, and also the employment of pins or blocks serving as guides for the rovings.

In the last or third carder the employment of long bobbins, capable of receiving many rovings, saves much space, and in this machine the delivering-cylinders are partly clothed and partly unclothed, as described.

The rovings resulting from the third carding operation are to be furnished to a mule or spinning-frame in which the spindles both draw and twist, the rovings being clamped at intervals during the operation.

Fig. 4 is a general view of part of a mule or spinning-frame. X X X are the spindles; Y, the carriage, made as usual. L is a drum, on the periphery of which the bobbin, M, containing carded roving or slivers rests, with its axis parallel to the line passing through the spindles, or nearly

Statement of the case.

so, but here, instead of winding the roving or sliver upon the bobbin, M, it is employed to give it off at the proper times and in the quantity required for spinning by means of a rotary motion given to the bobbin by the drum in a direction opposite to that in which the bobbin would move to wind up the roving. The motion is given to the drum L, from the machine, at the required time, by any fit and proper contrivance, but which need not be described here. The roving or sliver, U, delivered off from the bobbin, M, passes between a pair of jaws, W W, which are made to close upon and retain it at proper times, and to open again by the action of the machinery, as usual. Or, instead of jaws, grooved or channeled rollers may be employed for a similar purpose. The roving or sliver of wool, if spun without the use of oil, ought not, however, to be stretched more than one-fourth of its length.

I do not claim the individual parts of the machinery used in the several processes before described ; but

I do claim as follows :

1. In combination, the following sets of apparatus or elements making up a machine—namely : first, a bobbin stand or creel ; second, bobbins on which roving may be wound ; third, guides or pins ; fourth, a carding-machine ; fifth, condensing and drawing-off apparatus ; and, sixth, winding apparatus—all substantially such as are herein described, whereby rovings may be fed to a carding-machine, carded, condensed, drawn off, and wound again in a condensed state, substantially in the manner hereinbefore set forth.

2. The feed-rollers of a carding-machine in combination with bobbins and proper stands therefore, and guides or pins, whereby slivers or rovings may be fed to be carded by mechanism substantially such as herein described.

3. A delivering-cylinder of a carding-machine in combination with apparatus for drawing off, condensing or twisting, and winding carded filaments, the apparatus being substantially such as herein described, whereby carded filaments may be delivered, drawn off, condensed, and wound,

Argument of counsel.

in a condensed state, upon bobbins, as hereinbefore set forth.

4. A mule or spinning-frame provided with spindles mounted on a carriage, and with jaws or their equivalents for retaining roving, in combination with bobbins whose axes are parallel, or nearly so, with the line of spindles, and rest upon drums revolving to unwind the bobbins, the combination being and operating substantially as hereinbefore set forth.

In testimony whereof I have hereunto subscribed my name.

JOHN GOULDING.

In presence of—

D. H. MASON,

C. T. DUNCKLER.

*Messrs. C. Cushing, James B. Robb, and W. W. Boyce,
for appellant:*

The reissued patent, June 28, 1864, is void because it is not in conformity with the act of Congress authorizing the extension.

The act of Congress for the relief of John Goulding, authorized the Commissioner of Patents to grant the extension of the patent or withhold it, the same as if the application had been seasonably made, "provided that such renewal and extension shall not have the effect or be construed to restrain persons who may be using the machinery invented by said Goulding at the time of the renewal and extension hereby authorized, from continuing the use of the same; nor to subject them to any claim or damage for having used the same."

Here is an express limitation of the authority vested in the Commissioner. The grant is to be limited, so that it shall not be construed to vest in the patentee any right to restrain persons who may be using the machinery at the time of the extension, etc.

Argument of counsel.

This limitation should appear in the grant, and it was so intended by Congress.

It is not only provided that the extension shall not have the effect to restrain persons, etc. ; but further, it shall not be so construed. Now, if it had not been intended to qualify this grant by appropriate words of limitation, why were the words "shall not be so construed" added?

By the act of 1836, ch. 357, sec. 18, in the case mentioned, it is provided that "it shall be the duty of the Commissioner to renew and extend the patent by making a certificate thereon of such extension," etc. Now, to construe is to "discover or express the meaning by the right arrangement of the words of a sentence." This certificate was the subject to be construed, and the Commissioner of Patents very properly indorsed upon the patent of 1826, as reissued July 29, 1836, the extension, "subject to the proviso of the act of Congress," aforesaid, by which the extent of the rights granted to Goulding was qualified and limited, and the rights of persons therein provided for were protected.

But the plaintiff, the assignee of Mr. Goulding, not being satisfied with the patent subject to qualification or limitation, "presented a petition" (in the language of the patent), "signifying a desire of obtaining an exclusive property in the said improvement, and praying that a patent may be granted for that purpose;" and it was done accordingly.

No protection whatever is afforded thereby to an extensive interest and to a numerous class whom it was the intention of Congress to exempt from its operation.

It is respectfully submitted that it is no answer to say that they have the protection of the act. It was never intended to make it incumbent upon them to appeal for protection to the courts.

This is a private statute; no one entitled to the benefit of the proviso would ever learn it from any suggestion contained in this patent.

Argument of counsel.

Again, it is recited on the face of the patent, that the original "Letters patent were issued to John Goulding, December 15, 1836, which letters having been surrendered, the same were cancelled, and new letters ordered to issue to him July 29, 1836, which last letters were extended by the Commissioner for the term of seven years from and after August 30, 1862;" that is, it appears upon the face of this patent, that it was extended nearly twenty years after the expiration of the term for which it was originally issued.

Now, by the 19th section of the act of 1835, aforesaid, it is provided that "No extension of a patent (by the Commissioner) shall be granted after the expiration of the term for which it was originally issued." *Prima facie*, therefore, this patent is void, and it is only by invoking the statute that it can be saved. Now, that being a private statute, it should be incorporated with and accompany the exercise of the authority claimed under and by virtue of it.

Messrs. B. R. Curtis, E. W. Stoughton, and Brooks & Ball, for appellee.

1. Congress had power to pass the act authorizing the Commissioner to extend the patent.

Const. of U. S., art. 1, sec. 8; *Evans v. Jordan*, 9 Cranch, 199 [4 Am. & Eng. 7]; *Evans v. Eaton*, 3 Wheat. 454 [4 Am. & Eng. 16]; *Bloomer v. McQuewan*, 14 How. 539 [5 Am. & Eng. 434]; *Blanchard v. Sprague*, 3 Sumn. 535; *Blanchard Gun Stock Co. v. Warner*, 1 Blatchf. 275; *Blanchard v. Haynes*, decided in N. H., by Judge Woodbury, 6 West. Law J. 83; *Bloomer v. Stolley*, 5 McLean, 158.

2. The statement in the answer that the act was procured by fraud, cannot avail the appellants.

An act of Congress cannot be attacked collaterally, in a suit between private persons, by an allegation that it was procured by fraud. The Judiciary Act has no such control over the legislation.

Argument of counsel.

Fletcher v. Peck, 6 Cranch, 87; Gibson v. Gifford, 1 Blatchf. 531; Stark v. McGowen, 1 Nott & McC. 400; Commonwealth v. Breed, 4 Pick. 464.

Fraud is a conclusion of law from facts. The facts which constitute the fraud, must be specifically alleged. But this answer alleges no such facts.

Gilbert v. Lewis, 7 L. Times, N. S. 543; Goodyear v. Prov. R. Co., C. C., U. S., R. I., per Clifford, J.; 2 Fish. Pat. Cas. 514, and cases there cited.

Not the slightest evidence whatever of the procurement of the act by fraud has been adduced.

3. It is alleged in the answer that the extension of the patent was procured by fraud. This allegation cannot avail the appellants.

Field v. Seabury, 19 How. 332; Goodyear v. Prov. Rub. Co., 2 Fish. Pat. Cas. 514; Foley v. Harrison, 15 How. 446; Phila. & Trent. R. R. Co. v. Stimpson, 14 Pet. 458 [4 Am. & Eng. 324]; Jackson v. Lawton, 10 Johns. 23.

4. The action of the Commissioner is conclusive evidence that the surrender and reissue were regular, when the only difference between the two patents is in the claims, and the claims in the surrendered patent are obviously vague, confused, and of doubtful meaning and there is no evidence of fraud.

Laws, Dig., tit. Reissue, B. 617; Stimpson v. Westchester R. R., 4 How. 404 [4 Am. & Eng. 398]; Woodworth v. Stone, 3 Story, 753; Colt v. Young, 2 Blatchf. 471; Clum v. Brewer, 2 Curt. 518; Battin v. Taggart, 17 How. 84 [6 Am. & Eng. 242]; Carver v. Braintree Mfg. Co., 2 Story, 440.

The patent is *prima facie* evidence that Goulding was the original and first inventor of the thing patented.

The answer charges a fraudulent and surreptitious appropriation by Goulding of Winslow's invention, and fraud is to be proved by the party alleging it.

To sustain this burden, it is not sufficient for the appellant to prove that Winslow, while a hired workman of

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Goulding, suggested mechanical means of carrying some part or parts of Goulding's plan into effect. He must prove that the entire plan of the invention, as described by Goulding in the original letters patent of December 15, 1826, was the sole invention of Winslow; for the answer does not set up a joint invention by Goulding and Winslow, but a several invention by Winslow, and a fraudulent and surreptitious appropriation of the entire invention by Goulding.

Pitts v. Hall, 2 Blatchf. 234; Alden v. Dewey, 1 Story, 338; Dixon v. Moyer, 4 Wash. 71; Teese v. Phelps, McAll. 48; Story, J., in Washburn v. Gould, 3 Story, 133; Web. Pat. C. 132, *note, e*; Allen v. Rawson, 1 Man., G. & S. 574; Eyre v. Potter, 15 How. 56.

As to the danger of this kind of evidence, even where the supposed occurrences are recent, see Alden v. Dewey, 1 Story, 339; Pennock v. Dialogue, 4 Wash. 544.

As to the views, which a court of equity takes, of attempts to overturn existing titles by such evidence as the appellants rely on, after the lapse of forty years, see Badger v. Badger, in C. C., U. S., Mass. Dis., 1 Cliff. 237, per Clifford, J., and S. C., on Appeal, 2 Wall. 87.

Another defense set up is :

That at the time of the application for a patent, the invention was, and had been for a long time, on sale and in public use, with Mr. Goulding's consent and allowance, and that he abandoned the same to the public.

The allegation in the answer is as follows :

"And further answering, this defendat says that at the time of the application of the said Goulding for a patent, the said invention was, and for a long time had been, on sale and in public use, with his consent and allowance, and that he abandoned the same to the public."

It is not alleged that such sale or use had been for more than two years prior to such application for a patent; nor is it alleged when Goulding made the application referred

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to, nor when the alleged use or sale took place, and so no such defense is open on the record.

The 7th section of the act of 1839 applies to all patents, whether granted before or after its date.

McClurg v. Kingsland, 1 How. 202 [4 Am. & Eng. 382] ; *Stimpson v. Westchester R. R. Co.*, 4 How. 380 [4 Am. & Eng. 398].

The defense that he abandoned the same to the public, can be made out only by showing an intention to abandon, accompanied by sufficient acts of abandonment. The law does not favor forfeitures, and their grounds must be precisely averred and clearly proved. *Pitts v. Hall*, 2 Blatchf. 235.

The acts relied on must have reference to the machine substantially as patented. *Wyeth v. Stone*, 1 Story, 281.

Mr. Justice CLIFFORD delivered the opinion of the court.

Patentees acquire, by virtue of their letters patent, if properly granted and in due form, the full and exclusive right and liberty of making, using, and vending to others to be used, their respective inventions for the term of years allowed by law at the time when the letters patent were issued. Such exclusive right and liberty may be held and enjoyed by the patentee throughout the entire term for which it is granted ; or he may assign the letters patent, by an instrument in writing, either as to the whole interest or any undivided part thereof ; or he may grant and convey to another the exclusive right under the patent to make and use, and grant to others to make and use, the thing patented, within and throughout any specified district. 5 Stat. at L. 119, 121.

Damages may be recovered by an action on the case for any infringement of that exclusive right and liberty ; or the party aggrieved may, in any case, at his election, bring his suit in equity and pray for an injunction to prevent the violation of the same ; but the express provision

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is, that all such actions, suits, and controversies shall be originally cognizable, as well in equity as at law, by the Circuit Courts of the United States, or any district court having the powers and jurisdiction of a Circuit Court. 5 Stat. at L., 123, 124.

Jurisdiction of such cases is exclusive in the Circuit Court, subject to writ of error and appeal to this court, as provided by law; but the requirement is, that the suit must be brought in the name of the person or persons interested, whether patentees, assignees, or as grantees, as aforesaid, of the exclusive right within a specified locality. 5 Stat. at L. 123.

Present suit was in equity, and was founded on certain reissued letters patent granted to the complainant on the 28th of June, 1864, as the assignee, by certain *mesne* assignments, of John Goulding, who was the original patentee, and who, as alleged, was the original and first inventor of the improvement. Original patent was granted December 15th, 1826, for the term of fourteen years, and was, as alleged, for a new and useful improvement in the mode of manufacturing wool and other fibrous materials; but the claims of the specification were defective, and it was surrendered on that account, and reissued July 29th, 1836, for the residue of the original term.

Representations of the complainant were, that the original patentee, without any neglect or fault on his part, failed to obtain by the use and sale of the invention a reasonable remuneration for his time, ingenuity, and expenses employed and incurred in perfecting the invention, and introducing the same into use within the time for which the patent was originally issued, and that he failed, also, by accident and mistake, to obtain an extension of the patent before the expiration of the original term.

Power of the Commissioner to renew and extend the patent having expired, the allegation was that the original patentee applied to Congress, and that Congress, on the

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30th of May, 1862, passed an act for his relief. Pursuant to that authority, the bill of complaint alleged that the Commissioner, thereafter, on the 30th of August, in the same year, renewed and extended the patent in due form of law, for the further term of seven years from and after that date, subject to the provisions contained in the act conferring the authority.

Derivation of the title of the complainant is fully set forth in the bill of complaint, but it is unnecessary to reproduce it, as it is not the subject of controversy in this case. Possessed of a full title to the invention by assignments, the complainant, as such assignee, surrendered the letters patent, and the Commissioner, on the 28th of June, 1864, reissued to him the original patent, as extended under the Act of Congress, for the residue of the extended term.

Founded upon those letters patent, the bill of complaint alleged that the assignor of the complainant was the original and first inventor of the improvement therein described, and the charge is that the corporation respondents, having full knowledge of the premises, and in violation of the complainants' exclusive rights and privileges so acquired and secured, have since the date of the reissued letters patent, and without his license or consent, made, used and sold, and continue to make, use and sell in large numbers, cards, jacks and machinery, embracing and containing mechanism substantially the same in principle, construction and mode of operation as the improvement so acquired and owned by the complainant.

Prayer of the bill of complaint was for an account, and for an injunction, and for such other and further relief as the nature and circumstances of the case shall require.

Respondents appeared and filed an answer, and proofs were taken by both parties and they were heard in the Circuit Court upon bill, answer, replication and proofs, and a final decree upon the merits was rendered for the complainant, and thereupon the respondents appealed to this court.

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Numerous defenses were set up in the answer, but none of them will be much considered except such as are now urged upon the consideration of the court.

The grounds of defense specially enumerated in the brief of the appellants, and urged in argument, are as follows:

1. That the combinations set forth in the several claims of the patent were first invented by one Edward Winslow, and that neither of them was original with the assignor of the complainant.

2. That the invention, at the time the application for the original patent was made, had been on sale and in public use, with the consent and allowance of the applicant, for more than two years, and that he had abandoned the same to the public.

3. That the reissued letters patent described in the bill of complaint are void, because they do not contain the limitations and conditions expressed in the extended patent, and were not issued in conformity with the Act of Congress passed for the relief of the original patentee.

4. That the respondents' machinery, having been in use before and at the time the patent in this case was granted, is within the saving clause of the proviso in the said Act of Congress.

I. Exception might well be taken to the first proposition, upon the ground that it is a departure from the special defense set up in the answer, unless it can be admitted as included in the more general allegation, denying that the assignor of the complainant was the original and first inventor of the improvement described in the patent.

Persons sued as infringers may plead the general issue in suits at law, and may prove, as a defense to the charge, if they have given the plaintiff thirty days' notice of that defense before the trial, that the patentee was not the original and first inventor of the thing patented; but the same section which authorizes such a defense provides that whenever the defendant relies in his defense on the fact of a

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previous invention, knowledge, or use of the thing patented, "he shall state in his notice of special matter the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used." *Wilton v. Railroad*, 1 Wall., Jr. 195.

Evidence to prove such a defense, in a suit at law, is not admissible without an antecedent compliance with those conditions, and the settled practice in equity is to require the respondent, as a condition precedent to such a defense, to give the complainant substantially the same information in his answer. Unless the practice were so, the complainant would often be surprised, as the rule of law is that the letters patent afford a *prima facie* presumption that the patentee is the original and first inventor of what is therein described as his improvement, and if the respondent should not be required to give notice in the answer that proofs would be offered to overcome that presumption and establish the opposite conclusion, very great injustice might be done, as the complainant might rely upon that presumption and fail to take any countervailing proofs. *Teese v. Huntingdon*, 23 How. 10 [7Am. & Eng. 72].

Better opinion is that the defense embraced in the first proposition of the respondents, is not admissible under that allegation in the answer which denies that the assignor of the complainant was the original and first inventor of the improvement. Such a defense, if recognized at all in this case, must be admitted under that part of the answer which was evidently framed for that special purpose.

Substance and effect of those allegations are, that the respondents deny that the original patentee ever bestowed any ingenuity upon the improvements, and they allege that the same were invented and applied by one Edward Winslow, that the patentee first derived knowledge of the invention from that individual and that the original patentee fraudulently and surreptitiously obtained the patent

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for that which he well knew was the invention of his informant.

No exception was taken to the answer in the court below, and in that state of the case the allegations of the answer, that the invention was made by a third person and not by the assignor of the complainant, may be regarded as a good defense, but it is quite clear that the charge that the original patentee in this case fraudulently and surreptitiously obtained the patent for that which he well knew was invented by another, unaccompanied by the further allegation that the alleged first inventor was at the time using reasonable diligence in adapting and perfecting the invention, is not sufficient to defeat the patent, and constitutes no defense to the charge of infringement. 5 Stat. at L., 117, 123; *Reed v. Cutter*, 1 Story (U. C.), 599.

Viewed in any light, the proposition amounts to the charge that the invention was made by the person therein mentioned, and not by the assignor of the complainant, and the burden to prove it is on the respondents, not only because they make the charge, but because the presumption arising from the letters patent is the other way.

Application for a patent is required to be made to the Commissioner appointed under authority of law, and inasmuch as that officer is empowered to decide upon the merits of the application, his decision in granting the patent is presumed to be correct. *Pitts v. Hall*, 2 Blatchf. (C. C.), 229; *Union Sugar Refinery v. Matthiessen*, 2 Fish. 600.

Before proceeding to the inquiry whether or not that defense is sustained by the proofs, it becomes necessary to examine specifications and claims of the patent, and to ascertain, by a comparison of the mechanism therein described, with the antecedent state of the art, the true nature, character and extent of the improvement.

Sets of carding machines for the production of yarn from wool, were well known, and in use before the invention of the original patentee. They usually consisted, besides the

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spinning-jenny, of three carding machines, called the first and second breaker and the finisher, but they could not be used to much practical advantage, in connection with the jenny, without a separate machine, called the billy, for splicing the rolls. Two jennies were often used, instead of one, in that combination, and in some instances two double carding-machines were preferred, instead of three single machines.

Like the still older carding-machine, the breaker had what was called a feed table, and the wool, previously prepared by other means, was placed on that table, and was, by that means, fed to the carding mechanism, and having passed through the carding apparatus to the delivery end of the machine, was stripped from the device called a doffer, and fell to the floor. The device for stripping the filament from the doffer was a comb, which constituted a part of the machine. Second breaker was similar in construction to the first, and the process of feeding and carding was the same, but the filament from the first breaker constituted the material to be used in the second instead of using wool prepared by hand or from the picker, and the filament, when carded and stripped from the doffer, was wound round a drum. The method of feeding the material into the carding apparatus of the finisher was also the same, but it was provided with an additional apparatus, at the delivery end of the machine, called the roller and shell, which formed the material into short rolls. Those rolls were about the length of the card surface of the doffer. They were taken to the billy, and were there spliced by hand, on the apron of that machine and, as the apron moved forward, they were fed to the spindles, and converted into roving, suitable to be spun into yarn.

Goulding aimed to dispense with the billy altogether, and sought to accomplish, with four machines, what had previously required the use of five; and the evidence shows, beyond controversy, that his invention enabled manufac-

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turers to produce yarn from wool at much less cost, of better quality and in greater quantity, than was produced by the old process. His purpose, also, was to dispense with short roll, and to introduce the long or endless roll in its place. Years were spent by him in experiments to accomplish these purposes, but the result was that he was successful. He dispensed altogether with the billy and, by a new combination of old devices, he obtained the endless roll, and so perfected his machinery that he could use it successfully, from the moment the roving left the delivery end of the first breaker, till it was converted into yarn, fit to be manufactured into cloth.

Attempt will not be made to describe the various plans which he formed, nor the experiments which he tried, as it would extend the opinion to an unreasonable length. Under his method, as described, the wool, as it comes from the picker, is placed on the table of the first breaker, and is fed to the carding apparatus as before, but the sheet of carded material, when stripped from the doffer, is taken away on one side of the delivery end of the machine, by means of two rollers, through a turning-tube, or pipe, to which a slow rotary movement is given by a band passing from a drum, actuated by the machine, and operating upon a pulley affixed to the tube. Description is also given of the means by which the roving or sliver is condensed and wound round the bobbin, and also of the means by which it is retained in the proper position, and made to partake of the rotary movement communicated to the drum. Particular description is also given of the means by which the roving may be evenly wound upon the bobbins, either by carrying it and the drum backward and forward, or by passing it between guides, affixed to a bar, to which a similar movement is communicated.

Next step is, that the bobbins, with the roving thereon, twenty in number at least, are placed in a frame or creel, in order that the roving may be fed to the second carding-

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machine, and guided into it, between certain dividing pins, but it is taken away at the delivery end, in a single roving, and by the same means as from the first machine.

Principal object in passing the material through the second breaker is, that it may be more completely mixed, so that every part of the roving will be of the same fineness. Third operation is, that the bobbins of roving, as delivered and wound in the second breaker, are placed in a frame or creel, similar to that before described, but each roving is now to be kept separate, and certain blocks are provided for that purpose, made broader in front than behind, so that each roving shall preserve its proper situation, without mingling with those adjacent to it, during the operation of carding, and also that it may finally reach its proper place upon the delivering cards.

The feeding of the material into the carding apparatus of the finisher is accomplished in the same way as before described, but the mechanism for carding and for delivering the roving is more complex, and widely different. Two delivering cylinders are constructed, placed one above the other, surrounded with wire card, in strips, with uncovered spaces of equal width, and so arranged that the uncovered spaces on one cylinder shall correspond with the strips of wire card on the other, for carding the separate rovings as they are fed into the carding apparatus. Different mechanism is also provided for removing the carded material from the delivering cylinders, which is accomplished by the rotary action of the tubes upon such material, by which the several filaments, as they are delivered, are formed into a loose, continuous roving, which is guided between certain pins, and passed through certain rollers, in order to give the roving a sufficient coherence before it is wound on to the bobbins, to be used in the jenny.

Means for slightly twisting the roving as it leaves the finisher are also described, and the directions are, that the guides of the finisher must have a lateral motion backward

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and forward, so that each roving may be regularly laid side by side, within its own proper limits, and the devices to accomplish that function are fully described. Modifications were also made by the inventor in the devices of the carding apparatus of the finisher, and also in the apparatus for delivering the roving in the third operation, and for winding it on to the bobbins preparatory to their transfer to the jenny where the roving is spun into yarn. Those modifications of old machinery are minutely described in the specifications, and it is obvious that they are of great value in accomplishing the final result, and that they constitute some of the main features of the invention.

Changes were also made in some of the devices of the jenny, and also in their arrangement and mode of operation as compared with prior machines, and those alterations also are so clearly described as to constitute a full compliance with the 6th section of the Patent Act. Substitutes are suggested for many of the described devices, but it is not practicable to enter into those details. Separate parts of the machinery, as used in the several combinations, are not claimed by the patentee. Omitting redundant words the claims of the reissued patent are to the effect following :

First. I claim in combinations the following sets of apparatus making up a machine, namely : 1. A bobbin stand or creel. 2. Bobbins on which roving may be wound. 3. Guides or pins. 4. A carding machine. 5. Condensing and drawing off apparatus. 6. Winding apparatus, whereby rovings may be fed to a carding-machine, carded, condensed, drawn off, and wound again in a condensed state, substantially in the manner herein set forth.

Second. I claim the feed rollers of a carding-machine, in combination with bobbins and proper stands therefor, and guides or pins whereby slivers or rovings may be fed to be carded by mechanism substantially such as herein described.

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Third. I claim a delivering cylinder of a carding machine in combination with apparatus for drawing-off, condensing, or twisting and winding carded filaments, by apparatus substantially such as herein described.

Lastly. I claim a mule or spinning frame, provided with spindles mounted on a carriage, and with jaws or their equivalents for retaining roving in combination with bobbins, whose axes are parallel or nearly so with the line of spindles, and rest upon drums revolving to unwind the bobbins substantially as herein set forth.

Careful attention to the description of the invention and the claims of the patent, will enable the parties interested to comprehend the exact nature of the issue involved in the first defense presented by the respondents. Purport of that defense is, that the invention was made by Edward Winslow, and not by the assignor of the complainant. The settled rule of law is, that whoever first perfects a machine is entitled to the patent, and is the real inventor, although others may have previously had the idea and made some experiments towards putting it in practice. He is the inventor and is entitled to the patent who first brought the machine to perfection and made it capable of useful operation. *Washburn v. Gould*, 3 Story (C. C.), 133.

No one is entitled to a patent for that which he did not invent unless he can show a legal title to the same from the inventor or by operation of law; but where a person has discovered an improved principle in a machine, manufacture, or composition of matter, and employs other persons to assist him in carrying out that principle, and they in the course of experiments arising from that employment, make valuable discoveries ancillary to the plan and preconceived design of the employer, such suggested improvements are in general to be regarded as the property of the party who discovered the original improved principle, and may be embodied in his patent as a part of his invention.

Suggestions from another, made during the progress of

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such experiments, in order that they may be sufficient to defeat a patent subsequently issued, must have embraced the plan of the improvement, and must have furnished such information to the person to whom the communication was made that it would have enabled an ordinary mechanic, without the exercise of any ingenuity and special skill on his part, to construct and put the improvement in successful operation.

Persons employed, as much as employers, are entitled to their own independent inventions, but where the employer has conceived the plan of an invention and is engaged in experiments to perfect it, no suggestions from an *employé*, not amounting to a new method or arrangement, which, in itself is a complete invention, is sufficient to deprive the employer of the exclusive property in the perfected improvement. But where the suggestions go to make up a complete and perfect machine, embracing the substance of all that is embodied in the patent subsequently issued to the party to whom the suggestions were made, the patent is invalid, because the real invention or discovery belonged to another. *Pitts v. Hall*, 2 Blatchf. 234; *Allen v. Rawson*, 1 Man., G. & Scott, 574; *Alden v. Dewey*, 1 Story (C. C.) 338; *Minter's Patent*, 1 Web. P. C. 132, *note c*; *Curtis*, Pat. (3d ed.) 99; *Reed v. Cutter*, 1 Story (C. C.) 599.

Guided by these well established principles, the first inquiry is: what was actually done by the person who, as alleged by the respondents, was the real inventor of what is described in the reissued letters patent? They do not pretend that he invented or even suggested the entire invention, nor all of the several elements embraced in any one of the separate combinations, as expressed in the claims of the patent; and if they did, it could not for a moment be sustained, as it finds no support whatever in the evidence. None of the devices described in the specifications are new, but the claims of the patent are for the several combinations of the described elements arranged in the

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manner set forth, and for the purpose of working out the described results.

Regarded in that light, it is clear that the concession that the person named did not invent nor suggest the entire invention, nor any one of the separate combinations, is equivalent to an abandonment of the proposition under consideration, as it is clear to a demonstration that nothing short of that averment can be a valid defense. Respondents do not allege in the answer that the person named was a joint inventor with the original patentee, but the allegation is that he made the invention, and they deny that the assignor of the complainant ever bestowed any ingenuity upon what is described in the letters patent as his improvement. Such a defense cannot be successful unless it is proved, as common justice would forbid that any partial aid rendered under such circumstances, during the progress of experiments in perfecting the improvement, should enable the person rendering the aid to appropriate to himself the entire result of the ingenuity and toil of the originator, or put it in the power of any subsequent infringer to defeat the patent under the plea that the invention was made by the assistant and not by the originator of the plan.

The evidence shows that the original patentee was born in 1793, and that he commenced working on machinery in his youth, while he was with his father, and that, as early as the year 1812, he went into the employment of certain machinists, residing at Worcester, Massachusetts, who were engaged in constructing machinery for the manufacture of wool and cotton. While in their employment, he began experiments in woolen machinery. Those experiments were directed to the object of improving the billy, for the purpose of drawing out the carriage more accurately, and thereby making better work. Several years were spent in that business, but, in 1820, he went to Halifax, in that State, and, while there, he made numerous experiments to get rid of the billy entirely, and to dispense with short

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rolls, and substitute long rolls in their place. He remained there three years, and, during that time, he was constantly engaged in experiments to accomplish those objects. In the spring of 1823 he moved to Dedham, in the same State, and there hired a mill, and engaged in the manufacture of broadcloth, and also carried on the machine business, and the witness also states that he then prosecuted his experiments on a large scale.

Cans were used as a receptacle for the rovings delivered from the doffers, before the drawing off and winding apparatus, described in the patent, was invented. Rovings, before that invention, were spun from cans, instead of being wound upon, and spun from, spools or bobbins. Considerable importance is attached to the new method, as it was largely by that means that the use of the endless roving was made practical, and that the difficulty produced by the kinking of the roving, incident to the use of the cans, was overcome.

Theory of the respondents is, that the new method of accomplishing that function was invented by Edward Winslow, but their witness, John D. Cooper, only testifies that he made or suggested the spool or drum, which are not the only elements of that apparatus. Unaccompanied by the transverser, they would, perhaps, be better than the cans, but it is clear that the apparatus would be incomplete without that device, as it is by that means that the bobbins are evenly wound with the roving.

Testimony of that witness is, that he first suggested to Winslow that the roving must be wound on a spool, else they never could make good yarn, and he proceeds to state that they procured some pasteboard, and that Winslow made a pattern for a spool and drum from that material. Explanations, in detail, are given by the witness, of the several steps taken by them in accomplishing the change in the apparatus, and the witness states that the original patentee never saw the spool and drum until he came into

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the mill and saw those devices in the machine. Argument for the respondents is, that the spool and drum were invented by that party while he was in the employment of the original patentee, but the complainant denies the theory of fact involved in the proposition, and insists that the statements of the witness are untrue, and that he is not entitled to credit. Further statement of the witness is, that the improvement, as soon as it was perfected, was applied to all the carding and spinning machines in the mill, and that the mills, so adjusted as to embrace that improvement, were put in successful operation during the summer and autumn of that year.

Two answers are made by the complainant to the defense founded on that testimony, both of which are sustained by the court. 1. Suppose the testimony of the witness to be all true, the complainant contends that is not sufficiently comprehensive to support the allegations of the answer, nor even to support the proposition presented in the brief of the respondents. Taken in the strongest view for the respondents, the testimony merely shows that Winslow, or the witness Cooper, or both together, after the originator of the ~~plan~~ had nearly completed his great and valuable improvement, and while he was still prosecuting his experiments with the utmost diligence, suggested the spool and drum as substitutes for the cans, and that Winslow actually made those devices and, with the aid of witness, put them into one of the machines as an experiment. When their employer first examined the arrangement, rude as it was, he expressed great satisfaction with it, but upon seeing it tried he pronounced it of no value. Neither of those opinions, however, turned out to be quite correct, as, upon further trial, when better adjusted, and by adding the traverser, so that the contrivance would wind the roving evenly on the spool, it proved to be a useful auxiliary part of the invention.

Valuable though it was and is, as aiding in the accom-

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plishment of the desired result, it is, nevertheless, a great error to regard it as the invention described in the subsequent patent, or as such a material part of the same that it confers any right upon the party who made the suggestion to claim to be the inventor or joint inventor, of the improvement, or to suppose that the proof of what was done by that party can constitute any defense, as against the owner of the patent, to the charge of infringement.

Second answer to the defense founded on that testimony is, that the testimony is unreliable, because the witness is not entitled to credit. Hundreds of pages of the transcript are filled with proof, introduced either to assail or support the credit of that witness; but the court is of the opinion that it is not necessary to enter into those details, as the decision must be in favor of the appellee, even if every word stated by that witness is taken to be true. Entirely satisfied with our conclusion upon the merits, we are the less inclined to enter into those details, as a full analysis of the proofs within reasonable limits would be impracticable; but it is proper to say that the proofs have been carefully examined, and it is the opinion of the court that the letters patent in this case cannot be held to be invalid upon such testimony.

II. Second defense, as stated in argument, is, that the invention, at the time the application for the original patent was made, had been on sale and in public use, with the consent and allowance of the applicant, for more than two years, and that the applicant abandoned the same to the public. Abandonment, as set up in the concluding paragraph of the proposition, is a distinct defense from that set up in the preceding part of the same proposition, and must be separately considered.

Sale and public use, for more than two years prior to the application for the patent, are not alleged in the answer. What the respondents do allege is, that the invention, at the time the application for a patent was filed, and for a

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long time before, had been on sale and in public use, which, without more, is not a good defense against the charge of infringement. On the contrary, the correct rule is, that no patent shall be held to be invalid on account of such sale and public use, except on proof that the invention was on sale and in public use more than two years before the application therefor was filed in the Patent Office. 5 Stat. at L. 354; *McClurg v. Kingsland*, 1 How. 209 [4 Am. & Eng. 382]; *Stimpson v. Railroad*, 4 How. 380 [4 Am. & Eng. 398].

Evidence to show that the invention of the original patentee, as finally perfected, was on sale and in public use more than two years before he applied for a patent, is entirely wanting, and if such evidence was offered, it could not be admitted under the pleadings, as no such defense is set up in the answer. *Foster v. Goddard*, 1 Black, 518.

Undoubtedly, an inventor may abandon his invention, and surrender or dedicate it to the public; but mere forbearance to apply for a patent during the progress of experiments, and until the party has perfected his invention and tested its value by actual practice, affords no just grounds for any such presumption. *Kendall v. Winsor*, 21 How. 322 [7 Am. & Eng. 1]; *Pennock v. Dialogue*, 2 Pet. 1 [4 Am. & Eng. 217].

Application for a patent in this case was probably filed in the Patent Office before the middle of November, 1826, and the proofs are full and satisfactory to the court that the inventor, up to that time, was constantly engaged in perfecting his improvements, and in making the necessary preparations to apply for a patent.

III. Third defense is, that the reissued letters patent are void, because they were not issued in conformity with the act of Congress relating to that subject. Omission of the original patentee seasonably to apply for an extension of his patent was occasioned through erroneous information given to him by the Commissioner, and not from any neg-

Opinion of the court.

ligence or fault of his own. Acting upon information from that source, the inventor did not file his application until it was too late to give the notices as required by law, and the time for presenting such an application having expired, the commissioner had no power to grant his request. Deprived of any legal remedy under the general laws for the protection of inventors, he applied to Congress, and on the 30th of May, 1862, Congress passed an act for his relief. 12 Stat. at L. 904. .

By the terms of that act he was authorized to apply to the Commissioner for a renewal and extension of the letters patent, previously granted to him for the term of seven years from the time of such renewal and extension, and the Commissioner was empowered to grant such renewal and extension, or to withhold the same under the then existing laws, in the same manner as if the application therefor had been seasonably made. Annexed to the body of the act is a proviso, that such renewal and extension shall not have the effect nor be construed to restrain persons using the invention, at the time of such renewal and extension, from continuing the use of the same, nor to subject them to any claim or damage for having used such machinery.

Objection now taken is, that the said proviso in the act of Congress is not recited in the reissued letters patent; but the objection is entirely without merit, as it appears in the record that the certificate of renewal and extension, as granted by the Commissioner, was made subject in express terms to the proviso contained in that act.

Doubts are entertained whether even that was absolutely necessary; but it is clear that there is nothing in the proviso to warrant the conclusion that the form of the extended patent might not be the same as that in general use, and it is not even suggested that the form of the extended or reissued patent was in any respect different from the corresponding established forms of the Patent Office.

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IV. Fourth defense is, that the respondent's machinery was in use before the patent in this case was granted ; but it is not alleged that their machinery was in use before the extended patent was issued and, therefore, the allegation affords no defense to the charge of infringement. *Stimpson v. Railroad*, 4 How. 380 [4 Am. & Eng. 398].

Other defenses are mentioned in the brief of the respondents ; but none of them were urged in argument, and they must be considered as abandoned.

V. Infringement is an affirmative allegation made by the complainant, and the burden of proving it is upon him, unless it is admitted in the answer. Specific inquiries were made of the respondents in this case, and they did not satisfactorily answer those interrogatories. Evasive answers, under such circumstances, if not positively equivalent to admissions, afford strong presumptive evidence against the respondents. Apart from that, however, the answer of the respondents is unsatisfactory in other respects. They do not in terms deny that they have used, and are using, the invention as alleged ; but what they do deny is, that they use any machinery in violation and infringement of any rights of the complainant, or that they are using, or have made, used, or sold any machinery not protected by the proviso contained in the act of Congress passed for the relief of the original patentee.

Clear implication from the answer is, that they had made machinery such as that described in the letters patent, and if so, then they are clearly liable as infringers, as they were not incorporated at the date of the extended patent. Machines made since the patent was extended are not protected by that proviso, as is plain from its language ; but the complainant cannot recover damages for any infringement antecedent to the date of the reissued patent, as the extended patent was surrendered.

Proofs of the complainant to show infringement consist in a comparison of the machines made by the respondents

Notes and Citations.

with the mechanism described in the patent, and in the testimony of scientific experts, and they are so entirely satisfactory, that it is not deemed necessary to pursue the investigation.

Decree affirmed.

7 Wall. 610.

Notes :

1. Act 1790, sec. 6; Act 1793, sec. 6; Act 1836, sec. 15; Act 1870, sec. 61; R. S. sec. 4920.
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-

2. Patent is *prima facie* evidence of inventorship.

Blanchard v. Putnam, 8 Wall. 420 [p. 107 *post*].

Seymour v. Osborne, 11 Wall. 516 [p. 290 *post*].

Mitchell v. Tilghman, 19 Wall. 287.

Smith v. Goodyear D. V. Co., 93 U. S. 486.

Roemer v. Simon, 95 U. S. 214.

Bates v. Coe, 98 U. S. 31.

5. The first to reduce to practice is the prior inventor.

Whitely v. Swayne, 7 Wall. 685 [p. 70 *post*].

Loom Co. v. Higgins, 105 U. S. 580, and see

Seymour v. Osborne, 11 Wall. 516. [p. 290 *post*].

Coffin v. Ogden, 18 Wall. 120.

Telephone Cases, 126 U. S. 1.

Notes and Citations.

6. Suggestion made to inventor.

O'Reilly *v.* Morse, 15 How. 62 [5 Am. & Eng. 483].

Relations between employer and employé with regard to origin of invention.

Collar Co. *v.* Van Deusen, 28 Wall. 530.

10. Delay while experimenting is no abandonment.

Kendall *v.* Winsor, 21 How. 322 [7 Am. & Eng. 1], and see
Smith & Griggs Mnf'g. Co. *v.* Sprague, 123 U. S. 249.

12. Recitals in patent.

Railroad *v.* Stimpson, 14 Pet. 448 [4 Am. & Eng. 324].

Hogg *v.* Emerson, 6 How. 437 [5 Am. & Eng. 1].

14. Reissue relates back to original except as to infringement.

Grant *v.* Raymond, 6 Pet. 218 [4 Am. & Eng. 245].

Shaw *v.* Cooper, 7 Pet. 292 [4 Am. & Eng. 286].

Reed *v.* Bowman, 2 Wall. 591 [7 Am. & Eng. 388].

Patent in suit:

No. —. Goulding, J. December 15, 1826. Reissue July 29, 1836. Reissue No. 1,714, June 28, 1864. Improvement in Machinery for the Manufacture of Wool.

OTHER SUITS ON SAME PATENT:

Jordan *v.* Dobson, 1870. 2 Abb. U. S. 398; 4 Fish. 232; 7 Phila. 523.

Notes and Citations.

Jordan *v.* Wallace, 1871. 5 Fish. 185; 1 Leg. Gaz. Rep. 354;
8 Phila. 165.

Cited:

IN SUPREME COURT IN :

Blanchard *v.* Putnam, November, 1869. 8 Wall. 420; Bk. 19, L. ed. 436 [p. 107 *post*].
Stimpson *v.* Woodman, Dis. Opin., 1870. 10 Wall. 117; Bk. 19, L. ed. 866 [p. 221 *post*].
Seymour *v.* Osborne, 1871. 11 Wall. 516; Bk. 20, L. ed. 33 [p. 290 *post*].
Mitchell *v.* Tilghman, 1874. 19 Wall. 287; Bk. 22, L. ed. 125.
Union Paper Collar Co. *v.* Van Deusen, 1875. 23 Wall. 530; Bk. 23, L. ed. 128.
Consolidated Fruit Jar Co. *v.* Wright, 1877. 94 U. S. 92; Bk. 24, L. ed. 68.

IN CIRCUIT COURTS IN:

Goodyear Dental Vulcanite Co. *v.* Gardner, September, 1870. 3 Cliff. 413; 4 Fish. 224.
Hudson *v.* Draper, October, 1870. 4 Cliff. 178; 4 Fish. 256.
Jones *v.* Sewall, April, 1873. 3 Cliff. 563; 6 Fish. 343.
Locomotive Engine Safety Truck Co. *v.* Penn. R. R. Co., October, 1874. 1 Ban. & Ard. 470; 6 O. G. 927; 10 Phila. R. 252.
Henry *v.* Francetown Soap-Stone Stove Co., January, 1876. 2 Ban. & Ard. 221.
Storrs *v.* Howe, September, 1876. 4 Cliff. 388; 2 Ban. & Ard. 420; 10 O. G. 421.
Moore *v.* Thomas, July, 1877. 3 Ban. & Ard. 13; 14 O. G. 1.
Jennings *v.* Pierce, July, 1878. 15 Blatch. 42; 3 Ban. & Ard. 361.

Notes and Citations.

Union Paper Bag Machine Co. v. Pultz & Walkley Co., August, 1878. 15 Blatch. 160; 3 Ban. & Ard. 403; 15 O. G. 423.
 Kelleher v. Darling, September, 1878. 4 Cliff. 424; 3 Ban. & Ard. 438; 14 O. G. 673.
 Henry v. Providence Tool Co., October, 1878. 3 Ban. & Ard. 501; 14 O. G. 855.
 Woodbury Patent Planing Machine Co v. Keith, January, 1879. 4 Ban. & Ard. 100.
 Electric Signal Co. v. Hall Signal Co., April, 1881. 6 Fed. Rep. 603.
 National Feather Duster Co. v. Hibbard, November, 1881. 11 Biss. 76; 9 Fed. Rep. 558.
 The Fire Extinguisher Case, July, 1884. 21 Fed. Rep. 40.
 Penn. Diamond Drill Co. v. Simpson, August, 1886. 29 Fed. Rep. 288.

IN COMMISSIONER'S DECISIONS IN :

Doughty v. Clark, May, 1869. C. D. 1869, p. 14.
 Foster & Townsend v. Fowle, June, 1869. C. D. 1869, p. 35.
 Spofford & Montague v. Moore & Wyman, February, 1870. C. D. 1870, p. 6.
 Hall v. Hall, March, 1870 C. D. 1870, p. 25.
 Johnson v. Pimlott, May, 1870. C. D. 1870, p. 44.
 Hopkins v. Hardick, November, 1870. C. D. 1870, p. 141.
 Spencer & Saylor v. Trafford, May, 1871. C. D. 1871, p. 119.
 Gray v. Hale, May, 1871. C. D. 1871, p. 129.
 Gilbert v. Clarke, Bonzano & Griffen, April, 1874. 5 O. G. 428.
 De Sanno v. Ritchel, April, 1876. 9 O. G. 792.
 Gross v. Sargent, March, 1877. 11 O. G. 737.
 Hall v. Johnson, May, 1883. 23 O. G. 2411.
 Gill v. Scott, June, 1883. 23 O. G. 2511.

IN STATE COURTS IN :

Dice v. Joliet Mnfg. Co., May, 1882. 11 Bradw. (Ill.) 109.

2 Abb. Pat. Law, 1886, pp. 37, 38, 216, 317, 321, 342.

Curtis on Pats., 4th ed., §§ 87 a, 119 a, 389 a.

Merwin on Pat. Inv't., 1883, pp. 625, 338, 700, 714.

Walker on Pats., 1883, pp. 33, 60, 182, 184, 185, 190, 197, 327, 328, 329, 335, 362, 417.

Syllabus.

WILLIAM N. WHITELEY, APPELLANT, v. WILLIAM SWAYNE.*

7 Wall. 685-687. Dec. Term, 1868.

[Bk. 19, L. ed. 199 ; 2 Whit. 208.]

Argued March 2, 1869. Decided March 22, 1869.

Affirming *Ibid*, 4 Fish. 117.

First inventor. Abandoned experiment. Novelty. Date of invention. Particular patent sustained.

1. He is the first inventor and entitled to the patent, who, being an original discoverer, has first perfected and adapted the invention to actual use. (p. 73.)
2. *Held* that a patent for a practical and successful invention would be a valid defense to an earlier patent prior also in date of conception granted for unsuccessful and abandoned experiments made with respect to the same subject. (p. 73.)
3. The date of invention carried back to the first successful trial of the device. (p. 73.)
4. Letters patent No. 8,720, B. Densmore, Harvester, *held* to be for a practical machine prior in date of invention over reissues Nos. 985 and 986, T. S. Steadman, June 19, 1860, Harvesters (orig. No. 10,967, May 23, 1854), granted for an unsuccessful and abandoned experiment. (p. 74.)

[Citations in opinion of the court:]

Curtis, Patents, sec. 43, page 37, and notes. p. 73.

Appeal from the Circuit Court of the United States for the Southern District of Ohio.

The bill in this case was filed in the court below by the appellant, to restrain the appellee from selling certain reaping and mowing machines, alleged to infringe certain patents for harvesters.

The court having entered a decree dismissing the bill, the complainant took an appeal to this court.

*See Explanation of Notes, page III.

Argument of counsel.

A further statement of the case appears in the opinion of the court.

Mr. Samuel S. Fisher, for appellant.

Mr. Fisher, for appellant, says: "In conclusion the attention of the court is called to the remarkable unanimity of the witnesses upon the leading questions involved in this case. Which testimony proves, as we think, beyond a doubt, the novelty of these patents and their infringement by the defendant.

The truth is the function of the patented devices is identical in both machines, their points of attachment are the same, and their principle of operation, their mode of operation, is so nearly alike, that they might be exchanged without injury to either.

There is much documentary evidence, but after all but little that is material. The novelty is attacked by three machines, two of which are ante-dated by Steadman's caveat, and neither of which contain the 'principle' of the invention, viz: The vibration of the arm about the pinion shaft. The infringement of reissue 986 is virtually admitted, and that of reissue 985 very feebly denied. I submit that a decree must be entered for the complainant.

Mr. Wright on the part of the defendant submits the following points:

First. These reissues are void because the court never acquired jurisdiction to consider the subject.

Second. In regard to these reissues Nos. 985 and 986, the applicant fraudulently endeavored to obtain a patent for what he knew was not embraced in the original patent, and for that which he knew never was claimed by the original patentee as his invention.

Third. These patents (Nos. 985 and 986) are void, because they were granted for that which formed no distinct or separate parts of *the thing patented* to Mr. Steadman, and that fact appears *upon the papers* and therefore it was fraudulently obtained. In the original the claims are

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restricted to parts of a clover puller. In these reissues they have been fraudulently expanded by description in the specifications, as well as by expanding the claims, so as to claim that they apply to harvesters and mowing machines. See Judge Grier's opinion in the hat-body case. *Brooks v. Fiske*, 21 How. 220 [6 Am. & Eng. 15]; *Case v. Brown*, 2 Wall. 320 [7 Am. & Eng. 360].

Fourth. These reissues are also void, because granted to the plaintiff as assignee of Steadman, for that which never was assigned to him.

Fifth. Reissue No. 986 is also void, because the parts combined cannot produce the results claimed in plaintiff's machine.

Sixth. This patent (986) is void, because the claim is for a comb, which forms no part of *the thing patented* to Mr. Steadman. And we further submit that for that reason the issue of this patent was a fraud upon the public, and wholly unauthorized, and therefore void. See opinion of the court in the hat-body case. *Brooks v. Fiske*, 15 How. 220 [6 Am. & Eng. 15]; *Case v. Brown*, 2 Wall. 320 [7 Am. & Eng. 360].

Seventh. The original patent, had it been granted to Steadman for the same claim embraced in reissue No. 986, would have been void for want of novelty, because the invention of Byron Densmore ante-dates him.

Eighth. The defendant has not infringed reissue No. 986.

Ninth. The defendant has not infringed either of the claims contained in Reissue No. 985. As this patent is for combinations exclusively, we will assume the law to be as laid down in *Prouty v. Ruggles*, 1 Story 571, and in the same case by the Supreme Court as reported in 16 Pet. 341 [4 Am. & Eng. 351], to wit, that to constitute an infringement of a combination, *all* the elements of the combination must be used. See also *Brooks v. Bicknell*, 3 McLean, 453; *Vance v. Campbell*, 1 Black. 427 [7 Am. & Eng. 117]; *Eames v. Godfrey*, 1 Wall., 78 [7 Am. & Eng. 174].

Lastly. Were there any doubt upon the question of de-

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fendant's infringing either of the claims made in these reissues, there can be none in regard to the fact that he did not infringe any claim made in the original patent, and therefore if his machine does infringe either of the claims made in the reissues, that reissue is void.

Mr. Justice NELSON delivered the opinion of the court.

This is an appeal from the Circuit Court of the United States for the Southern District of Ohio.

The bill in this case is founded on two patents. One issued to J. L. Hardeman, 20th August, 1850, for an improvement in a machine for cutting hemp, millet and grain, which was assigned to the plaintiff, Whiteley, and surrendered, and three reissues granted to him on the 18th June, 1861; the other to T. S. Steadman, May 23d, 1854, for an improvement in clover and grass seed harvesters which is assigned to the plaintiff and surrendered, and three reissues granted to him on the 19th June, 1860.

The machine complained of, and sought to be enjoined, is known as the Kirby harvester, originally patented to Byron Dinsmore, February 10th, 1852. Nothing is heard of the Hardeman patent, except in the bill. The litigation, therefore, so far as the plaintiff's interests are concerned, depends upon the Steadman patent for cutting clover heads and grass seed. On April 18th, 1862, Steadman filed a *caveat* in the Patent Office in which he states that he is engaged in making experiments for perfecting certain improvements in a machine for harvesting clover and grass seed preparatory to letters patent therefor. We have seen that this patent was granted May 23d, 1854. Besides the *caveat* and the patent, we have an account of the working of the machine by Mr. Hatch, in 1854. Steadman resided in Holley, Orleans county, New York, and was a neighbor of Hatch. The machine, which was tried in the neighborhood on several occasions, in clover fields, never went into successful practical operation. None were ever

Omitted in Wall.

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made under the patent after the first, which was about the time the patent was granted. The experiment appears to have been wholly given up and abandoned by Steadman as a failure; and it thus remained for some six years, when the plaintiff, Whiteley, took from him an assignment of the patent and procured the three reissues already referred to.

(a) The plaintiff's title (b), therefore, upon which he must succeed against the defendant, if (c) at all, as will be seen, rests upon a patent for improvements in a machine for harvesting clover and grass seed; which improvements, after a full and fair trial, resulted in unsuccessful experiments, and which were finally abandoned. They never went into any useful or practical operation, and nothing more was heard of them from Steadman or any other person, for a period of six years. At the end of this period the plaintiff takes an assignment of the patentee, and is, doubtless, vested with all his rights. But what were those rights? Clearly, if any other person had chosen to take up the subject of the improvements, where it was left off by Steadman, he had a right thus to enter upon it, and if successful, would be entitled to the merit of them as an original inventor, for he is the first inventor and entitled to the patent, who, being an original discoverer, has first perfected and adapted the invention to actual use. Curtis, Patents, sec. 43, p. 37, and *notes*.

Hence, if Densmore's patent was later than that of Steadman, and was for similar improvements, it would constitute a perfect defense against the suit in the present case, as the plaintiff is obliged to rely wholly on this assignment of Steadman, and stands in his footsteps, and has no better title. But the fact is otherwise, Densmore's invention goes back to the year 1850. His first machine was successfully

(a) Wallace begins Opinion here.

(b) Wallace inserts "and the one."

(c) Wallace inserts "he succeeds."

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tried in the harvest of that year. Some twenty-one were made in the year 1851, and from fifty to sixty in 1852. Steadman's *caveat* was even not filed in the Patent Office till after Densmore's patent was issued. The present defendant derives his title from Dinsmore. The case is too plain to require any extended examination.

Decree below affirmed.

7 Wall. 687.

Notes:

1. The first to reduce to practice is the prior inventor. See *Agawam Co. v. Jordan*, 7 Wall. 583, note 5 on p. 64 *ante*.
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2. An abandoned experiment will not defeat a subsequent patent.
Gayler v. Wilder 10 How. 477 [5 Am. & Eng. 188].
Seymour v. Osborne, 11 Wall. 516 [p. 290 *post*].
Corn Planter Patent, 23 Wall. 181.
Smith v. Goodyear D. V. Co., 93 U. S. 486.
Elastic Fabrics Co. v. Smith, 100 U. S. 110.
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Case of abandoned experiment.

Marsh v. Seymour, 97 U. S. 348.

Held not an abandoned experiment.

Miller v. Foree, 116 U. S. 22. And see
Coffin v. Ogden, 18 Wall. 120.

Notes and Citations,

Patent in Suit:

No. 10,967. Steadman, T. S. May 23, 1854. Reissues Nos. 985 and 986, June 19, 1860. Harvester.

OTHER SUITS ON SAME PATENT :

Whiteley v. Swayne, 4 Fish. 117.

Cited :**IN CIRCUIT COURTS IN:**

Coffin v. Ogden, November, 1869. 7 Blatch. 61 ; 3 Fish. 640.

Albright v. Celluloid Harness Trimming Co., June, 1877. 2 Ban. & Ard. 629.

Union Paper Bag Machine Co. v. Pultz & Walkley Co., August, 1878. 15 Blatch. 160 ; 3 Ban. & Ard. 403.

Judson v. Bradford, October, 1878. 3 Ban. & Ard. 539.

Whittlesey v. Ames, January, 1880. 9 Biss. 225 ; 13 Fed. Rep. 893 ; 5 Ban. & Ard. 96.

Phillips v. Carroll, March, 1885 23 Fed. Rep. 249.

Pennsylvania Diamond Drill Co. v. Simpson, August, 1886. 29 Fed. Rep. 288.

IN COMMISSIONER'S DECISIONS IN :

Duchemin v. Richardson & Stein, April, 1870. C. D. 1870, p. 31.

Wilder, April, 1870. C. D. 1870, p. 40.

Duckworth v. Crompton & Wyman, May, 1870. C. D. 1870, p. 43.

Notes and Citations.

Hewins v. Spooner, September, 1870. C. D. 1870, p. 94.
Gage, September, 1870. C. D. 1870, p. 100.
Gray v. Hale, May, 1871. C. D. 1871, p. 129.
Disston v. Emerson, June, 1871. C. D. 1871, p. 162.

IN TEXT-BOOKS :

Curtis on Pata., 4th ed. § 87 a.
Merwin on Pat. Inv't., 1883, p. 679, 716.

Syllabus.

DAVID B. MOREY, WILLIAM C. SMITH AND
FRANCIS B. RICHARDSON, APPELLANTS, v.
HAMILTON D. LOCKWOOD.*

8 Wall. 230-242. Dec. Term, 1868.

[Bk. 19, L. ed. 339; 2 Whit. 210.]

Argued October 14, 1869. Decided October 25, 1869.

Reissue. Error of Commissioner. Formal change. Particular patent sustained.

1. The broad claim of reissued letters patent No. 1,940, C. H. & H. E. Davidson, April 25, 1865, Syringe, sustained, in view of the fact that the restrictions in the claim of the original No. 16,956, March 31, 1857, which was at first substantially identical with that of the reissue arose from an error into which the inventors were led by the Commissioner of Patents himself. (p. 95.)
2. *Held* that the reissue claim which was for "a syringe having an elastic bulb or chamber, flexible tubes and a suitable valvular arrangement when organized, so as to operate substantially as described," was infringed by an arrangement of the same parts and materials, but not connected together in an axial line as in patentee's invention; and that it was a change in form and not in substance. (p. 96.)
3. The novelty of the invention sustained. (p. 96.)

[Citations in opinion of the court:]

Curtis, Patents, 260, 261, and note 1, p. 264, n. 2. p. 96.

Appeal from the Circuit Court of the United States for the District of Massachusetts.

The bill in this case was filed in the court below, by the appellee, to obtain an injunction against the infringement of a certain patent, and an accounting for all gains and profits previously acquired by such infringement.

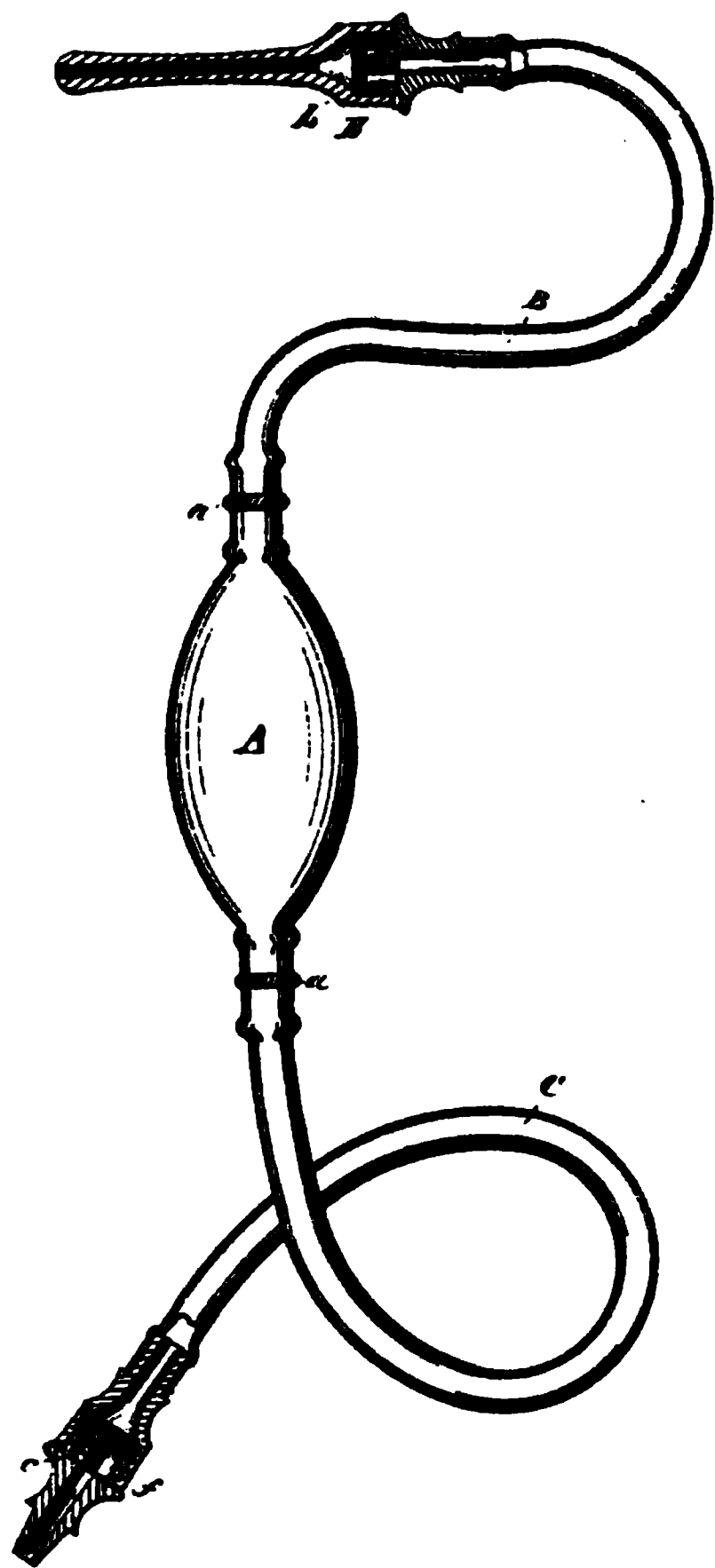
*See Explanation of Notes, page III.

C. H. & H. E. Davidson,

Syringe.

Patented Mar. 31. 1857.

Nº 16.956.



Witnesses
A. G. Lombard.
Wm. C. Cady
A. P. P. P.
C. Hayes

Inventors.
Ch^s H. Davidson
Harman E. Davidson

Statement of the case.

A decree having been entered granting the relief prayed for, the defendants took an appeal to this court.

A further statement of the case appears in the opinion of the court.

The patents referred to in the opinion of the court are the following :

CHAS. H. DAVIDSON, OF CHARLESTOWN, AND H.
E. DAVIDSON, OF GLOUCESTER, MASSACHU-
SETTS, ASSIGNORS TO CHAS. H. DAVIDSON,
AFORESAID.

Letters Patent, No. 16,956. Dated March 31, 1857.

IMPROVEMENT IN SYRINGES.

The schedule referred to in these Letters Patent and making part
of the same.

To whom it may concern :

Be it known that we, Charles H. Davidson, of Charlestown, in the county of Middlesex, and Herman E. Davidson, of Gloucester, in the county of Essex, both in the State of Massachusetts, have invented a new and improved Syringe, and we do hereby declare the following to be a clear, full and exact description thereof, taken in connection with the accompanying drawing, which is a view of our improved syringe, with the valve boxes represented in section. Similar letters on the drawing, refer to similar parts.

The nature of our invention consists in the combination of a hollow elastic bulb of a prolate spheroidal shape with flexible tubes and metallic valve boxes containing valves arranged for the purpose of eduction and ejection, when the elastic tubes and metallic valve boxes are all attached to such an elastic bulb or sack, in or nearly in its greatest

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axial line. The prolate spheroidal form of sack is the one best adapted to produce the greatest effect from the grasp of the hand by which this instrument is operated ; by so combining it with the tubes and valve boxes, that they shall be in or nearly in the greatest axial line of the sack, the fluid is passed through the instrument in the most direct manner and with the least loss of effect possible by friction.

To enable others skilled in the art to make and use our invention we will proceed to describe its construction and operation.

(A) is a hollow bulb or sack made of India rubber or any suitable material of sufficient elasticity to recover its form when compressed ; the ends of this bag or sack are coupled to long flexible tubes, B, C, to the outer extremities of which the valve boxes, E, F, are attached. The valve box, E, contains a valve (b) opening outward and the other, F, a valve (c) opening inward. The terminations of the valve boxes may be of any shape adapted to the service required of them ; the termination of the valve box, F, is arranged for the eduction, and that of the valve box, E, for the injection pipe of a pump or syringe for administering an enema.

The operation of this instrument is as follows : Immerse the end of the eduction tube in the enema, compress the bulb with the hand, which will expel the air from within ; then releasing the grasp of the hand the bulb will recover its form by virtue of its elasticity, and the partial vacuum thus formed will be filled by the enema. Now insert the injection pipe and repeat the operation of compressing the bulb until the required quantity of enema is administered.

We prefer the spheroidal shape for the bulb as with that shape a better effect is obtained from the grasp of the hand, than with any other.

The advantages of our invention are, that its parts are all easily accessible for cleaning and repairs ; any required form of injection or eduction pipe can be fitted to the in-

Statement of the case.

strument; any person not physically disabled can use the instrument without assistance from a second person.

To those cases where patients cannot be moved without causing them great pain, this instrument is peculiarly adapted, as its flexibility and construction allow it to be used in any position of the patient, instrument or vessel containing the enema. The strains or wrenching which cannot be avoided even by the most careful operator when a rigid syringe is used, with the pain occasioned thereby to the patient, are by the use of our instrument avoided.

Having described our invention, what we claim as new and desire to secure by Letters Patent of the United States, is—

The combination of the prolate spheroidal-shaped elastic sack with flexible tubes terminating in valve boxes containing valves arranged for the purpose of * * * education and ejection, when the sack tubes and valve boxes are in or nearly in the same axial line, the whole operating together substantially in the manner and for the purpose set forth.

CHAS. H. DAVIDSON.

Witnesses for C. H. D.

J. B. CROSBY,
N. C. LOMBARD.

HERMAN E. DAVIDSON.

Witnesses for H. E. D.

A. PRESSON,
C. HAYES.

HAMILTON D. LOCKWOOD, OF CHARLESTOWN,
MASSACHUSETTS, ASSIGNEE OF C. H. AND H.
E. DAVIDSON.

IMPROVEMENT IN ENEMA-SYRINGES.

Specification forming part of Letters Patent No. 16,956, dated
March 31, 1857; Reissue No. 1,940, dated April 25, 1865.

To all whom it may concern:

Be it known that Charles H. Davidson, of Charlestown,

Statement of the case.

in the county of Middlesex, in the State of Massachusetts, and Herman E. Davidson, of Gloucester, in the county of Essex, in the said State, invented jointly a new and Improved Syringe, of which the following, taken in connection with the accompanying drawings, is a description sufficiently clear and exact to enable those skilled in the art to practice said invention.

This invention consists in a syringe which is composed of an elastic bulb provided with two flexible tubes and a suitable valvular arrangement, all being so organized that by compressing the bulb its contents shall be expelled through one tube, while by the expansion of the bulb, consequent upon its own elasticity, it will be filled with whatever fluid the salient end of the other tube is immersed in.

This invention is particularly useful and capable of universal application in that any person may cleanse or inject any natural outlet from the body without aid from a second person, and any desired quantity of injection or enema may be administered without removal of the salient end of the injecting tube from the body, while from the flexible character of the tubes no injurious or hurtful strain is brought upon the body, which, with the vessel containing the fluid, may be in any position desired within reasonable limits.

Referring to the drawings, A denotes a hollow chamber, bulb, or sack, made of rubber or other suitable material, of sufficient elasticity to recover its form when compressed. The flexible tubes are denoted by B and C, the former being the outlet passage from the bulb A, and the latter the inlet passage to the bulb. These tubes are best made of rubber. The tubes B and C are provided with suitable valve-boxes E and F. In E is located the delivery or outlet valve *b*, opening outward, and in F is placed the inlet or suction valve *c*, opening inward. The salient end of the tube B is to be provided with terminations of such shape and material as to be adapted to the requirements of any passage to be injected, and the salient end of the tube C

Statement of the case.

should be provided with a termination suited to sink in fluid and to admit its passage freely into the tube. Suitable coupling pieces (denoted by *a*) serve to connect the tubes B and C to the bulb.

The operation of this instrument is as follows: Immerse the end of the inlet-tube C in the enema, compress the bulb with the hand, which will expel the air from within it through the tube B; then, releasing the grasp of the hand, the bulb will recover its form by virtue of its elasticity, and the vacuum thus formed, more or less perfect, will be filled by the enema. Now insert the salient end of tube B in the orifice to be injected, and repeat the operation of compressing the bulb until the required quantity of injection is administered.

The spheroidal shape of the bulb, as shown, is deemed preferable to any other, as it is best adapted for the grasp of the hand and easily resumes its shape after compression.

The arrangement of the bulb with its axis, as a continuation of the axes of the tubes is, preferable to any other, on account of obtaining a direct flow of fluid through the instrument and because the whole instrument readily drains itself if allowed to hang pendent from the end of tube C.

What is claimed as the invention of Charles H. Davidson and Herman E. Davidson is—

A syringe having an elastic bulb or chamber, flexible tubes, and a suitable valvular arrangement, when organized so as to operate substantially as described.

In witness whereof I have hereunto set my hand this 9th day of February, A. D. 1865.

H. D. LOCKWOOD.

In presence of—

J. B. CROSBY,

W. B. GLEASON.

The drawings of this reissue are identical with those of the original No. 16,956, p. 81 *ante*.

Argument of counsel.

Messrs. George S. Boutwell and Henry F. French, for appellants.

Their invention, if valid for anything, is valid only to the extent of the claim in their original patent.

The Davidsons were not the inventors of elastic tubing, for Herman E. Davidson admits its existence and his knowledge of it at the time when he claims to have begun his experiments.

Nor were they the inventors of an elastic bulb or chamber, for these are shown in different forms in defendant's exhibits "D," "C," "H," "B," and "I," and in complainant's exhibit "17."

They were not the inventors of the valvular arrangement: for this is shown in many of the exhibits.

They did not invent the spheroidal form of an elastic bulb; for that is described as old by Herman Davidson.

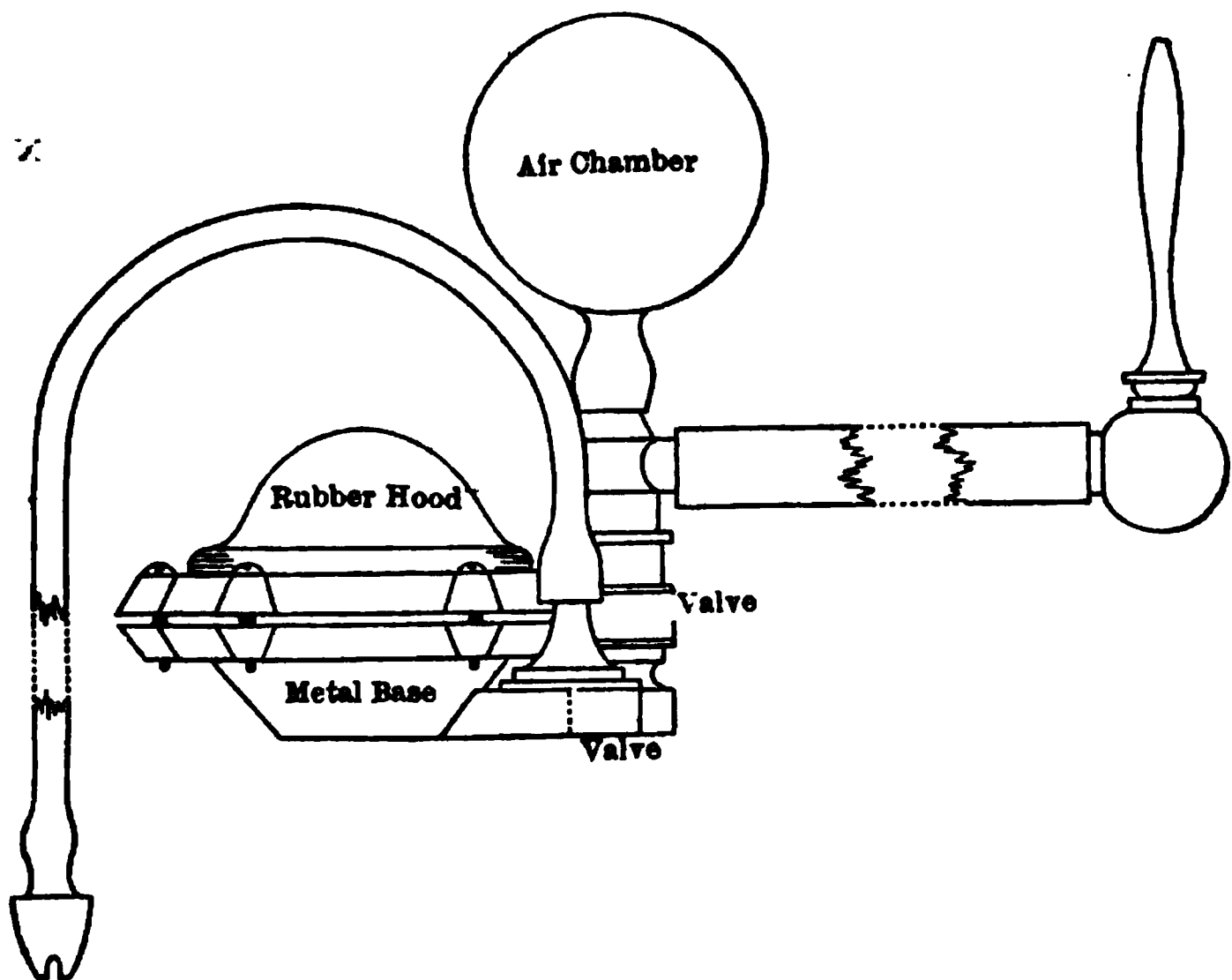
Nor did they invent "a syringe having an elastic sac with flexible tubes terminating in valve boxes containing valves arranged for the purpose of eduction and ejection when the sac, tubes and valve boxes are in or nearly in the same axial line," for these devices, with precisely the same arrangement, are shown in the barrel syringe.

Nor were they the inventors of a syringe having an elastic bulb or chamber, flexible tubes and a suitable valvular arrangement; for both the Thiers syringe and the barrel syringe fall within this description, which is the substantial part of, and is quoted from, the claim in the reissued patent.

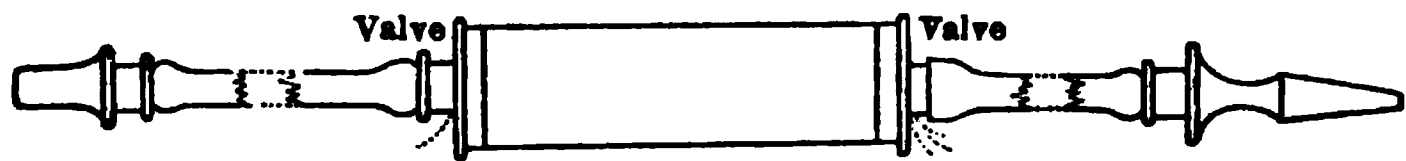
The reissued patent claims "a syringe having an elastic bulb or chamber, flexible tubes and a suitable valvular arrangement when organized, so as to operate substantially as described."

It cannot be claimed that any single element of the instrument is new. Every part is old. The claim is substantially, if not technically, for a combination. It is the arrangement or organization which is claimed as new and useful.

THE THIERS SYRINGE.



THE MAW SYRINGE.



Argument of counsel.

If the fair and natural construction of the reissued claim includes any syringe of which the Davidsons were not the original and first inventors, then the claim is broader than the invention, and so is void.

We submit that such construction clearly includes both the Maw and the Thiers syringe.

The original claim describes a bulb in the words, "prolate spheroidal shaped elastic sac." The word "chamber" was not there. It was not in the *caveat*, and it was used in the reissued claim with a purpose and meaning.

It is in no sense a synonym with bulb. Every bulb is a chamber, but a chamber is not necessarily a bulb,

Unless the court can say that chamber means nothing more than bulb, the claim is broader than the invention, when construed in reference to the Maw syringe.

The drawings are part of the description, and it may be said that the claim is only for a syringe with bulb or chamber tubes and valves, organized in the particular manner shown in the drawings.

Now, the drawings in the reissue are the same as in the original patent, and show the tubes and bulb in the same axial line.

But the complainants are compelled to go further, and say that their reissue covers not only the form shown in their drawings, but all other forms where the same parts are "organized so as to operate substantially as described;" using the word "operate" in the sense to produce effect.

This, we submit, is not a fair construction.

The word *operate* relates to the mechanism of the syringe, not to the final result of its use.

In this sense all modern syringes operate alike. They not only inject fluids, but they do so by means of pressure upon elastic chambers, through flexible tubes and valves.

If this is what is meant by operating as described, then the claim is too broad, as including the old Maw and Thiers Syringes already exhibited.

The original patent was neither "inoperative" nor "in-

Argument of counsel.

valid," nor was the specification defective or insufficient, and the reissue was, therefore, without authority of law.

Burr v. Duryee, 1 Wall. 531 [7 Am. & Eng. 224]; *Case v. Brown*, 2 Wall. 320 [7 Am. & Eng. 360].

The patent is wholly void, as well for the invention claimed in the original patent, as for the broader claim found in the reissued patent, because syringes containing all that is claimed as the invention of the Davidsons were known and used in this country long before their alleged invention.

The syringe made by the appellants is a combination of old parts, substantially different from the Davidson syringe in structure and effect.

1. Our bulb is not their bulb, but different in this, that ours has but one aperture, while theirs has two.

2. The arrangement or organization differs in this, that in ours the fluid in the bulb is above the point of delivery, and we have gravity to aid in expelling it; while in theirs one-half of the fluid is below the center of the bulb.

3. Ours has a three-way piece not found in theirs, and which cannot be used with theirs.

4. Ours is so constructed as to receive other pipes for various purposes.

These differences, we submit, constitute ours a different instrument, different in its combination of parts and different in its mode of operation.

The principles involved in the discussion are too familiar to the court to require particular statement. *McCormick v. Talcott*, 20 How. 405 [6 Am. & Eng. 410].

That the complainant is limited to the peculiar combination of devices invented and described, is well settled.

Case v. Brown, 2 Wall. 320 [7 Am. & Eng. 360]; *Burr v. Duryee*, 1 Wall. 531 [7 Am. & Eng. 224].

Messrs. B. R. Curtis and Causten Browne, for appellee.

The original patent, the application for which was filed April 2, 1856, shows, in the description and drawing, iden-

Argument of counsel.

tically the same instrument that is described and drawn in the reissued patent.

The claim made at the time of such original application, was substantially the same that is now granted by the re-issue.

In April, 1856, the Patent Office rejected such original claim, as having been anticipated by the patent of Pearsall & Gilbert.

In May 22, 1856, the patent attorneys of the Davidsons wrote to the Patent Office, acquiescing in the rejection, and submitting an amended and restricted claim, on which, after some objections at the Patent Office, the original patent was finally granted.

This limitation of claim resulted from actual inadvertence and mistake.

The Patent Office afterwards admitted and corrected its own mistake, by granting the reissue patent with the claim as originally made.

The appellants have in evidence, against the novelty of the invention, two instruments, the priority of which the appellee does not now deny; but he does deny that they contain the patented invention.

1. The Thiers Syringe.

This was an instrument of French manufacture. It had two flexible tubes, with suitable valves, but it did not have an elastic bulb or chamber substantially like that shown in the patent.

(a) It was not made of elastic material, but of a metal base plate and a rubber hood set up on it; the rubber hood forming one substantial part of the chamber to be collapsed, and the metal base plate forming the other substantial part thereof.

(b) The chamber was not expanded by the elasticity of the material, but by means, wholly or partly, of a metal spring placed within the chamber.

(c) The necessary prolongation of the flow of the pressure after the collapsing of the chamber has ceased, was ac-

Argument of counsel.

complished, not by the reaction of the chamber alone, as in the Davidson instrument, but by that and an air chamber acting in connection with it.

2. The "Maw" Syringe.

This was an instrument of English manufacture. It had two flexible tubes with suitable valves, but it did not have an elastic bulb or chamber substantially like that shown in the patent.

The chamber was partly elastic and partly rigid, the middle portion being formed of a cylindrical elastic tube with rigid metallic heads, which formed a material portion of the inclosure, and by their connection with the elastic part of the chamber, counteracted or prevented the compression of the chamber to properly expel the fluid.

It is important to observe the practical difference between mere couplings of metal to connect the elastic chamber with the flexible tubes, and to contain the valves and metal pieces, "Forming," as Hibbard expresses it, "a material portion of the inclosure, and by their connection with the elastic part of the chamber, counteracting or preventing the compression of the chamber" to properly expel the fluid.

In the former case, which is the case of the patent syringe, the "inclosure" or chamber, as the reservoir for receiving by its expansion, the enema through one tube, and for supplying, by its compression, the enema through the other tube, is complete, irrespective of the couplings.

But in the latter case, which is the case of the "Maw" syringe, the metal ends or heads are substantial parts of the reservoir, the elastic part of which is a mere cylinder, and of course has not the character or capacity of an elastic reservoir at all.

The difference between the "Maw" syringe and the patent syringe as regards the construction of the elastic chamber, is proved to be important practically.

Opinion of the court.

Mr. Justice NELSON delivered the opinion of the court.

This is an appeal from a decree of the Circuit Court of the United States for the District of Massachusetts.

The bill was filed by Lockwood, to enjoin the defendants from infringing letters patent granted to Charles H. and Herman E. Davidson, March 31, 1857, for a new and useful improved syringe; and which was surrendered and reissued on the 25th day of April, 1865, with an amended specification.

The original specification described the improvement, in substance, to consist of an oval, or spheroidal elastic bulb, with flexible tubes and metallic valve boxes, containing valves arranged for the purpose of eduction and ejection, when the elastic tubes and metallic valve boxes were attached to such a bulb in, or nearly in, its greatest axial line. The bulb and flexible tubes are composed of India rubber, or of any suitable material of sufficient elasticity and flexibility, as is necessary and required by the patentee, in the use or operation of the instrument. The specimens exhibited were all made of India rubber.

The operation of the instrument is as follows: immerse the end of the eduction pipe in the enema, compress the bulb with the hand, which will expel the air from within, then releasing the grasp, the bulb will recover its form by means of its elasticity, and the partial vacuum will be filled with the enema; then insert the injection pipe and repeat the operation of compressing the bulb, until the required quantity of the enema is administered. Having described the invention, what the inventors claimed as new was "the combination of the prolate spheroidal-shaped elastic sac, with flexible tubes terminating in valve boxes containing valves arranged for the purpose of eduction and ejection, when the sac, tubes and valve boxes are in, or nearly in, the axial line, the whole operating together, substantially in the manner and for the purposes set forth."

The amended specification is, substantially, the same as the original, leaving out that part which describes the bulb

Omitted in Wall.

Opinion of the court.

or sac, tubes and valve boxes, attached and so arranged as to be "in, or nearly in, its greatest axial line;" and as it respects the claim, which is as follows: "What is claimed as the invention of Charles H. and Herman E. Davidson, is a syringe, having an elastic bulb or chamber, flexible tubes, and a suitable valvular arrangement, when organized, so as to operate substantially as described."

(a) Several objections are taken to this reissued patent, among others, and which is the most material, that the claim is broader than the invention. (b) The proofs in the case show that the improvement was made in the summer or fall of 1852. A *caveat* was filed in the Patent Office in the fore part of January, 1853. The petition, together with the accompanying description, is dated at Charlestown, 8th of January of that year. In that description the petitioners state that their improvement consists in using a spheroidal cylindrical or globular elastic sac or bulb, to which are attached, and communicating with it, flexible tubes or pipes; to the ends of these pipes are connected valve boxes, with suitable valves therein, so that by the alternate action of compression and expansion, the desirable quantity of injection may be administered without removing the instrument to refill it. The invention is described in the *caveat* substantially the same as in the original and amended specification.

When application was made by the attorney of the inventors to the Commissioner of Patents, with a claim substantially the same as the one in the amended specification, objection was made at the office on the ground that they were anticipated by Messrs. Pearsall and Gilbert, according to their invention published in the Franklin Journal; and the Commissioner refused to grant the patent except with a claim as found in the original specification, and especially without the clause, "when the sac, tubes and valve boxes are in, or nearly in, the axial line," etc.

8 WALL. 240.

(a) Wallace begins opinion here.

(b) Wallace omits from b to c.

Opinion of the court.

The specification in this form was supposed to have taken the improvement out of the objection of the prior one by Pearsall and Gilbert.

Subsequently it was discovered by the patentees or their assignee, and also by the Commissioner himself, that the invention of Messrs. Pearsall and Gilbert furnished no legal objection to the claim of the Davidsons as first presented to the office, and on a surrender by the assignee, he was allowed to amend it as found in the reissued patent. The prior improvement relied on, it is true, had a rubber sac, but the tubes were metal and inflexible (*c*).

The 13th section of the act of 1836 authorized a surrender, and an amended specification, when the patent issued is inoperative, or invalid, by reason of a defective or insufficient description or specification; or, "if the error has, or shall have arisen by inadvertence, accident, or mistake, and without any fraudulent or deceptive intention." We do not doubt that the Commissioner had full authority to grant the amendment; and, under the special circumstances of the case, it would seem to have been a duty, as the inventors were led into the error by himself, as may be seen from his letter when the patent was originally granted.

The amendment was very material, as the language of the original claim tied the patentees down to the syringe, consisting of the parts mentioned, to an instrument in which they were arranged in an axial or straight line; tying them down to the mere form of the construction, regardless of the substance and legal import of the invention. While the original specification and claim remained, it was competent for anyone to evade the patent, and enjoy the substance of the improvement by a change in the mere form of the construction, that is, by an arrangement of the several parts in any form, if not in an axial or straight line; and this is what the defendants are endeavoring to accomplish, and would have accomplished if the amendment of the claim had not been allowed.

They have constructed a syringe with the same parts and

Opinion of the court.

materials as used by the patentees' ; but instead of arranging them in an axial line, the bulb or sac is placed above the point of delivery and discharge of the enema, extending its hollow neck so that the tubes may connect with each side of it. The only difference, even in form, between this and the patentees is, that the latter, in the axial line, tubes connect with the ends of the bulb ; in the former they connect, not with the ends of the bulb, but with the sides of its hollow neck. The enema passes from the eduction pipe through the neck or throat into the bulb, and is forced through the discharge pipe by the same means as used by the patentees. The mode of operation is precisely the same in both instruments. The change is one of form and not of substance, and upon well established principles of patent law, constitutes no defense to a bill for an infringement. Curtis, Patents, 260, 261, and *note* 1, p. 264, *n.* 2.

As bearing upon this point it may be stated that the patentees themselves first constructed and used this form of syringe ; but becoming satisfied that the other form was the best, recommended it in their specification accordingly. They are protected, however, against the use of any form, as will be seen by the authorities referred to, that embodies substantially their ideas and mode of operation.

On the question of novelty there are two specimens of syringe produced by the defendants that are chiefly relied on as disproving it : one called the Maw syringe, and the other the Thiers. The first differs from the patentees' in this, that the cylindrical bulb, or chamber, is made so rigid both in the material and from its metallic ends, or heads, that it is not sufficiently elastic to be adapted to practical use ; and for this reason it failed and went out of the market.

The Thiers syringe differs from the patentees' in this, that part of the bulb or chamber is metal, and part rubber ; and the elastic portion is aided by a spring inside of the chamber. There is, also, an air chamber attached to the delivery pipe. The whole construction and arrangement is different from the patentees', as they have dispensed

Notes and Citations.

with the metal portion of the bulb, the spring, and the air-chamber, and substituted a simple India rubber bulb.

The rest of the proof on this point is conflicting, and we agree with the court below, that the weight of it is decidedly with the complainant.

Decree below affirmed.

8 WALL 242.

Notes :

1. Error of the (Department) Commissioner is properly corrected by reissue:

Grant v. Raymond, 6 Pet. 218 [4 Am. & Eng. 245].

2. Change in form but not in substance:

Rees v. Gould, 15 Wall. 187.

Eddy v. Denis, 95 U. S. 560.

Paper Bag Machine Co. v. Murphy, 97 U. S. 120.

Heald v. Rice, 104 U. S. 734; and see

Winans v. Denmead, 15 How. 180 [6 Am. & Eng. 107, note].

Patent in Suit :

No. 16,956, Davidson, C. H. & H. E. March 31, 1857. Re-issue No. 1940, April 25, 1865. Syringe.

Cited :

IN SUPREME COURT IN :

Russell v. Dodge, 1876. 93 U. S. 460; Bk. 23, L. ed. 974.

Notes and Citations.

IN CIRCUIT COURT IN:

Richardson v. Lockwood, May, 1870. 6 Fish. 454; 4 Cliff. 128.
Giant Powder Co. v. Cal. Vigorit Powder Co., 1880. 6 Sawy. 508;
4 Fed. Rep. 720.

Scrivner v. Oakland Gas Co., Sept., 1884. 10 Sawy. 390; 22 Fed.
Rep. 98; 18 Reporter, 806.

Filley v. Littlefield Stove Co., April, 1887. 30 Fed. Rep. 434.

Yale Lock Mnfg. Co. v. New Haven Savings Bank, Sept., 1887.
32 Fed. Rep. 167.

IN COMMISSIONER'S DECISIONS IN:

C. H. & H. E. Davidson, March, 1871. C. D. 1871, p. 71.

IN TEXT BOOKS:

Merwin on Pat. Invt., 1883, p. 305

Walker on Pats., 1883, pp. 44, 155, 156, 266.

Syllabus.

THE AMERICAN WOOD PAPER COMPANY, APPELLANT v. JACOB D HEFT ET AL.*

8 Wall., 333-337. Dec. Term, 1868.

[Bk. 19, L. ed. 379; 2 Whit. 220.]

Argued February 26, 1869. Decided November 8, 1869.

Fictitious suit.

1. Where it appeared that complainants had purchased in the patents under which the suit was defended, were owning both sides of the subject matter of the litigation, and that defendants having taken in consideration for the sale, stock in complainants' company, their interest had been transferred to the side of the complainants; a motion to dismiss the appeal was allowed, notwithstanding that the damages for the alleged infringement had not been compromised. (p. 103.)

[Citations in opinion of the court:]

Lord v. Veazie, 8 How. 251. p. 103.

Appeal from the Circuit Court of the United States for the Eastern District of Pennsylvania.

On motion to dismiss.

The history of the case and a full statement of the facts appear in the opinion of the court.

B. F. Butler, in support of the motion, said:

“Why should this court sit to adjudge upon the validity of these conflicting patents when they are all owned by the same company and are held in the same interest?”

What litigation is there now before the court upon these patents?

It may be said that the court is called upon to proceed in this case because there remains a question of damages between the complainants and defendants for infringement of their patents. We are quite willing to meet this ques-

*See Explanation of Notes, page III.

Opinion of the court.

tion. Nothing is in litigation as to the damages for the future, because Harding testifies expressly that he has a license to Heft & Co., for all future time to make paper from straw under the Mellier patent. And Dixon himself testifies that he owned one-third of the Dixon patent, and is still operating under it; and that the complainants have confirmed all the licenses under the Dixon patent. And we produce a release from Watt & Burgess to Harding, trustee of the Dixon patent, for all licenses present and future, under the Dixon patent. So that no future damages can be obtained against the defendants.

Now, Harding, trustee of the Dixon patent, was defending Dixon, who was working under that patent, of which he owned one-third, till within six months, when his trustee, Harding, sold all the patent to the complainants. Can it be believed that Harding has sold and thus left himself liable to damages in this suit? Then it could only have been done for an object, to wit: To have a plausible and colorable pretext for prosecuting this action at this bar—a pretext which the court will at once see through and reprobate. See *Goodyear v. Beverly Rubber Co.* decided by the Sup. Ct. Dec. Term, 1862, where the precise point is adjudged.

Mr. T. A. Jenckes, for appellants, contra.

Mr. Justice NELSON delivered the opinion of the court.

This is an appeal from a decree of the Circuit Court of the United States for the Eastern District of Pennsylvania. The bill was filed by the complainants in the court below, the appellants here, to enjoin the defendants against the infringement of several patents owned by the former for improvements in the manufacture of paper, two of which need only to be mentioned—one to Watt & Burgess, granted on the 2d July, 1854, in the manufacture of paper pulp from wood and other vegetable substances; the other M. A. Ch. Mellier, on the 26th May, 1857, in the manufacture of paper

Omitted in Wall.

Opinion of the court.

by using a peculiar process in the treatment of straw and other fibrous materials.

The answer of the defendant set up several defenses, but the most material were: 1. The want of novelty; and 2. That they manufactured paper in their establishment under inventions and patents of John W. Dixon, one of the defendants. A mass of proofs were taken on both sides, and after the hearing of counsel on the 22d of November, 1867, the bill was dismissed, the two judges differing in opinion. It is now before us on appeal.

Pending this appeal, Harrison B. Meach has been allowed to intervene by counsel, upon an allegation that, since the decree below, the case has been settled and that it is now carried on without the appellees having any further interest in the defense; and for the purpose of obtaining the decree of this court in favor of the complainants to influence suits pending in the circuits in their favor and against strangers to this suit, and in which the same questions are involved. That the intervenor is a defendant in one of these suits. A commission has been heretofore issued to take proofs in the matter, and which are now before us. The original bill was filed on the 29th August, 1865. It appears from the proofs under the commission, that at this time the Dixon patents which were set up as one of the defenses to this suit, were owned, two-thirds by W. W. Harding, and one-third by Dixon, the inventor; the two-thirds having been conveyed in December, 1864, the co-defendants of Dixon having no interest therein, except working under them in the manufacture of paper. It further appears that in the fall of 1868, about one year after the decree dismissing the bill, Harding and Dixon sold and transferred all their interest in the Dixon patents to the complainants and received for the same eighteen hundred shares of the stock of their company at par value, which was \$100 per share, nominally \$180,000, and this for one-half the interest in the patents; for the other half the

Omitted in Wall.

Opinion of the court.

complainants confirmed the licenses that had been granted under the Dixon patent.

This is the account of the sale given by Dixon, who was examined as a witness under the commission.

Hay, the general agent of the complainants, says the purchase was made with Harding, and that stock to the amount of two thousand shares was given, and that two certificates with blank vouchers of attorney were made out and delivered to Harding, one for eighteen hundred and the other for two hundred shares. Dixon states that Harding transacted the business with the complainants for him, and with his concurrence.

(a) The case, therefore, as it now stands, is: the complainants having purchased in the patents under which the suit was defended, own both sides of the subject-matter of this litigation; and, further, the owners of the Dixon patents having taken, in consideration for the sale, stock in the complainant's company, their interest has been transferred to the side of the complainants.

It is said, notwithstanding all these negotiations, exchanges, and transfers, the *damages* for the alleged infringement in the bill have not been compromised. But, before that question can be reached, as the bill was dismissed below, this court must hear and determine the question on the merits, whether or not the defenses set up in the answer are sustained upon the proofs. If the court should determine they were not, then the question of damages would arise; if otherwise, not. Now, upon this question of merits, the complainants own both sides of the litigation and control them; and, in the language of the Chief Justice, in the case of *Lord v. Veazie*, 8 How. 255, "the plaintiff and defendant have the same interest, and that interest adverse and in conflict with the interest of third persons, whose rights would be seriously affected if the question of law was decided in the manner that both parties to

8 Wall. 336.

(a) Wallace begins Opinion here.

Notes and Citations.

this suit desire it to be." And, for this reason, the case should not be heard by this court.

If anything further was necessary to show that the litigation is no longer a real one, even if the suit should proceed, and the question of damages be reached, there would be the same interest on both sides, Dixon, one of the defendants, since the sale of his patents, having a large interest on the side of the complainants, and, as defendant, would be subject to his payment of part, or the whole amount of the damages recovered. Indeed, the weight of the proofs is, that he has bound himself to keep his co-defendants harmless.

The motion to dismiss the case, for the reasons above given, must be granted.

8 Wall. 336-337.

Notes:

1. Collusive suit.

Gardner v. Goodyear, D. V. Co. Bk. 21, L. ed. p. 141 post.

Patents in suit:

No. 11,343. Watt & Burgess, July 18, 1854, *a*. Reissue 1,448, April 7, 1863. Reissue 1,449, April 7, 1863. Paper Pulp Manufacturing.

No. 17,387. Mellier, M. A. C., May 26, 1857. Paper Pulp, *b*.*

OTHER SUITS ON SAME PATENT:

Buchanan v. Howland, 1863. 5 Blatch. 151. 2 Fish. 341. *b*.

American Wood Paper Co. v. Heft, 1867. 3 Fish. 316. *a. b*.

American Wood Paper Co. v. Fibre Disintegrating Co., 1868. 6 Blatch. 27, 3 Fish. 362. *a. b*.

* The letter *a* or *b* following the patent is repeated after the title of the case to indicate that the suit was on that particular patent.

Notes and Citations.

American Wood Paper Co. v. Glens Falls Co., 1870. 8 Blatch.

513. a. b.

Wood Paper Patent, 1874. 23 Wall. 566. a.

Anthony v. Carroll, 1875. 2 Ban. & Ard. 195; 9 O. G. 199. b.

Cited:

IN SUPREME COURT IN:

Dakota Co. v. Glidden, 1885. 113 U. S. 222 ; Bk. 28 L. ed. 981.

IN CIRCUIT COURTS IN :

Loan and Trust Co. v. Green Bay & M. R. Co., March, 1881. 10
Biss. 203.

Syllabus.

ALONZO V. BLANCHARD, JOHN D. BLANCHARD
AND FRANKLIN BLANCHARD, Partners as A. V.
BLANCHARD & CO., PLAINTIFFS IN ERROR, *v.*
ANTOINE PUTNAM, CONRAD WEAVER AND
JOHN BITTINGER.*

8 Wall., 420-430. Dec. Term, 1868.

[Bk. 19, L. ed. 433; 2 Whit. 223.]

Argued November 9, 1869. Decided November 29, 1869.

Reversing *Ibid* 2 Bond 84.

*Letters patent primâ facie evidence. Evidence. Prior knowledge
and use. Statutory notice. Burden of proof.*

1. Letters patent are *primâ facie* evidence that the patentee is the first and original inventor of the improvement claimed therein. (p. 114.)
2. On the question of infringement the only proper comparison on that issue is that of the defendants' machine with that of the plaintiff, and it is no answer to the cause of action to plead that defendant is licensee of the owner of another patent and that his machine is constructed in accordance therewith. (p. 115.)
3. Where, apart from the question of damages, one of the two issues presented by the pleadings was, whether the patentee of the patent on which suit was founded was the first and original inventor of the improvement therein, and defendants introduced evidence of prior knowledge and use without giving the notice of special matter required by act 1836, sec. 15, of the names and places of residence of those having such knowledge, the evidence was held inadmissible, although reversal for error was nowhere based upon the failure to comply with the requirement of the statute. (p. 116.)
4. The burden of proof is on defendant to show that the notice required by act 1836, sec. 15, as to prior knowledge, and use

* See Explanation of Notes, page III.

Argument of counsel.

was given to the plaintiff thirty days before the trial, and if he fails to do so, he cannot introduce any evidence to controvert the novelty of the patent. (p. 117.)

[Citations in the opinion of the court:]

Corning v. Burden, 15 How. 271 [6 Am. & Eng. 69]. p. 115.

Curtis' Pat. sec. 118. p. 115.

Pitts v. Hall, 2 Blatch. 229. p. 115.

Cahoon v. Ring, 1 Cliff. 625. p. 115.

Curtis Pat. secs. 350, 353. p. 116.

Carver v. Mfg. Co., 2 Story 432. p. 116.

Teese v. Huntingdon, 23 How. 10 [7 Am. & Eng. 72]. p. 117.

Agawam Co. v. Jordan, 7 Wall. 596 [p. 24, ante]. p. 117.

Phila. & T. R. R. v. Stimpson, 14 Pet. 459 [4 Am. & Eng. 324]. p. 118.

Silsby v. Foote, 14 How. 222 [5 Am. & Eng. 411]. p. 118.

Phillips v. Page, 24 How. 168 [7 Am. & Eng. 97]. p. 118.

Labor v. Cooper, 7 Wall. 569. p. 120.

In error to the Circuit Court of the United States for the Southern District of Ohio.

This action was brought in the court below by the plaintiffs in error for damages alleged to have resulted to them from the infringement of a certain patent owned by them as assignees.

The trial having resulted in a verdict and judgment for the defendants, the plaintiffs sued out this writ of error.

A very full statement of the case appears in the opinion of the court.

Mr. G. M. Lee, for plaintiffs in error.

The defendants used their machine for wood bending, at Cincinnati, Ohio, and claimed a license to use the same under a patent granted John C. Morris, March 11, 1856, and reissued May 22, 1862, for an improvement in wood bending machines.

The machine of defendants in appearance is somewhat unlike that patented by Blanchard, and defendants claim it works on a different principle from Blanchard's; while plaintiffs claim it is the same in principle and mode of operation as Blanchard's, and that it is covered by Blanchard's patent and claim.

Argument of counsel.

The real question, is therefore, what construction shall be given to Blanchard's patent? I first call the attention of the court to the well-known proposition that patents are to be liberally construed, so as to save to the inventor the substance of his invention.

Curt. Pat. 126; *Winans v. Denmead*, 15 How. 330 [6 Am. & Eng. 107]; *Blanchard v. Sprague*, 2 Story, 169; *Blanchard v. Warner*, 1 Blatchf. 259; *Blanchard v. Beers*, 2 Blatchf. 411.

If this patent shall receive the usual liberal construction given to such patents in this high tribunal, or the liberal construction given in the cases cited in the various Circuit Courts of the United States, to the patents of this famous inventor, it certainly must cover the machine of defendants here in controversy.

From a full examination of the two machines, counsel concluded that the principle parts of the two machines are the same. Like Blanchard's, the bending tool of Morris is a lever, or sometimes two. The forming and shaping tool is also a mold; the tools for end pressure are also clamps or abutments, and a wedge is used at the end of the stick, between the stick and the clamp, when the stick is too short. Relaxation or relief is obtained when needed by cutting the bent stick, a little shorter than the distance between the abutments or clamps. The wood slides upon the Morris lever as on Blanchard's sliding beam and is bent by end pressure after being properly confined in the machine in the same mode of operation as in Blanchard's. The substantial parts of the Blanchard and Morris machines are the same. The operation and principle are the same and the result is the same in both machines. By every known principle of patent law, there is an infringement.

Curt. Pat. sec. 221; *Wyeth v. Stone*, 1 Story, 273; *Odiorne v. Winkley*, 2 Gall. 51; *Winans v. Denmead*, 15 How. 330 [6 Am. & Eng. 107]; *Battin v. Taggart*, 17 How. 80 [6 Am. & Eng. 242].

Argument of counsel.

The charge took the whole case from the jury and left them nothing to find, and was in direct antagonism with the law.

Battin v. Taggert (*supra*); Winans v. Denmead (*supra*).

The judge avoided any construction of the whole Blanchard patent, and spent his force in ruling out the stationary form, and charging that this stationary form could not be covered by the Blanchard patent. He appears to have been able to see nothing in this case but this stationary form, and went off on a tangent thereon, charging as a fact to the jury that the stationary form was different from the rotating, when he should have left this fact to the experts and the jury, and it was a matter of fact which he had no business to charge or pass upon. Certainly this is a clear error.

There is little else in the case except this construction of the Blanchard patent. I will merely glance at the other errors.

1. The first error claimed is the improper admission of E. S. Renwick's deposition. We claim that S. S. Fisher's affidavit and the written agreement thereto attached, with the officer's certificate, were not sufficient to entitle the deposition to be put in evidence.

2. We claim that William F. Mitchell's evidence was improperly admitted on the promise of defendants' counsel to afterwards so connect it with other evidence as to make it admissible. There is nothing to show that it was ever so connected, and upon its face it was inadmissible.

3. We claim that Christian Leeburgh's evidence was improperly admitted, by whom the court permitted proof that a bending machine claimed by defendants to be made in conformity to Blanchard's patent, worked badly, and broke much timber; for there was no proof to show that the machine was, in fact, made in conformity to Blanchard's patent.

For we claim that John Byrne's evidence was improperly admitted, who was allowed to testify that a machine made

Argument of counsel.

in conformity to the patent of John C. Morris, worked well ; because there was no issue here as to the validity or utility of said Morris' patent.

We claim that John C. Morris' original patent was improperly ruled out by the court when we offered it in evidence. The court had allowed defendants to put in evidence the Morris reissue, and to show that they were licensees under it ; and if this was competent, it was certainly competent to put in the whole Morris record, in order to detract from his invention, to show that he invented something different from the reissue, or had fraudulently obtained the reissue.

Mr. Samuel S. Fisher, for defendants in error:

The defendants' machine had a stationary form, and contained all the features which Blanchard declared it was the object of his invention to avoid, that is to say :

1. The bed piece and the lever were not connected at fixed distances.

2. The power was applied to the timber itself, as a means of communicating power to the parts of the bent.

3. End pressure was applied, but no means were provided for relaxation.

As this machine was as different from Blanchard's as it was possible to make it ; as, in fact, it belonged to an entirely different class of machines, it would seem that the verdict was right, which declared it to be no infringement.

1. The deposition of Mr. Renwick was read by virtue of a written agreement between counsel. The deposition was properly taken in the case of Morris v. Royer, Coleman and Young, under the Act Congress, and under the circumstances narrated in the affidavit. It was, therefore, properly admitted in this case.

2. As the bill of exceptions does not purport to recite the whole testimony, if the plaintiff wished to show that Mitchell's testimony was improperly admitted, he should have stated in the bill of exceptions, either that it never

Argument of counsel.

was connected with other evidence, or that the court subsequently refused to execute it. The bill must recite all the facts necessary to show the alleged error.

3. The testimony of Christian Leesburgh was offered to show the working of the Blanchard machine. That machine was for "bending wood." The patentee describes a plow handle machine, but says: "The machine represented in the accompanying drawings is designed for bending plow handles, but it is obvious that the details of the machinery must be varied when the invention is applied to bending other articles having different forms." The defendants were sued for using a machine for bending, not plow handles, but felloes, and, therefore, the evidence was perfectly pertinent.

4. John Byrnes was called to show that in the Morris machine, in operation, there was no relaxation. As this relaxation was one of the peculiar features of the Blanchard "methods," it was certainly relevant to show that the machine used by defendants did not employ it.

5. Defendants being licensees under the reissued letters patent of Morris, put them in evidence under the decision of the Supreme Court in *Corning v. Burden*, 15 How. 252 [6 Am. & Eng. 69]. The plaintiffs thereupon offered the original letters patent.

As the Morris patent was not on trial, and the evidence afforded by the reissued patent merely went to the extent of showing that defendants acted under color of title or right, it is not perceived what part the original patent could play in the case. Certainly oral evidence could not have been received, attacking the Morris reissue. The court could not try two cases at once, and the original patent could neither strengthen nor weaken the presumption that the defendants were using a machine which the Patent Office had declared to be patentable, notwithstanding the prior patent of Blanchard.

6. The court refused the specific charges asked by plaintiffs, in the form in which they were offered, but gave them in substance.

Opinion of the court.

Mr. Justice CLIFFORD delivered the opinion of the court.

Damages for the infringement of letters patent may be recovered by the patentee, or by his assignee of the whole interest, or by his grantee of the exclusive right within and throughout any specified district, by a suit in equity or by an action on the case, at the election of the holder of the legal title. 5 Stat. at L. 123, 124.

Letters patent were granted to Thomas Blanchard, December 18, 1849, for a new and useful improvement in bending wood, for and during the term of fourteen years from that date, but the specification being imperfect, on the 15th of November, 1859, he surrendered the patent, and the same was reissued to him, with an amended specification, for the residue of the original term.

Granted for the term of fourteen years only, the patent expired on the 17th of December, 1863, but the patentee having failed to obtain from the use and sale of his invention a reasonable remuneration for the time, ingenuity and expense bestowed upon the same and the introduction thereof into use, the Commissioner of Patents renewed and extended the patent for the term of seven years from and after the expiration of the first term, giving it the same effect as if it had originally been granted for twenty-one years. Subsequent to the extension of the term the patentee deceased, and the patent was reissued to his executrix, from whom the plaintiffs derive title by virtue of an assignment in due form, as is conclusively admitted by the defendants.

Undoubted owners of the title to the patent, the plaintiffs, on the 23d of November, 1865, instituted this suit, and the charge is that the defendants, on the 2d of November of the previous year, and on divers other days and times between that day and the commencement of the suit, infringed the exclusive right to the invention vested in the plaintiffs, by constructing and using ten machines for bending wood in imitation of the plaintiff's invention, and in

Opinion of the court.

violation of the exclusive right secured to them in their letters patent. Process was issued, and being duly served the defendants appeared and pleaded the general issue, and upon that issue, unaccompanied by any notice to the plaintiffs of any special defense, the parties went to trial, and the verdict and judgment were for the defendants.

Exceptions were duly taken by the plaintiffs to certain rulings of the court in admitting evidence offered by the defendants, and to the instructions of the court, as given to the jury, and the only questions presented for decision are such as are involved in the exceptions to those rulings and instructions.

On the trial of the cause the plaintiffs, to sustain the issue on their part, introduced in evidence the reissued patent on which the suit was founded, together with the original patent and the certificate of renewal and extension; and having proved the assignment and introduced evidence tending to prove that the defendants had infringed the reissued patent, as alleged in the declaration, rested their case.

They might well rest in that state of the case, as the letters patent afforded *prima facie* evidence that the patentee under whom they claimed was the original and first inventor of what is therein described as his improvement, and having introduced evidence tending to show infringement and damage, they were entitled to a verdict unless some evidence was introduced by the defendants to rebut the evidence given to prove infringement, or to establish some valid defense to the cause of action set forth in the declaration.

Influenced, doubtless, by that view of the case, the defendants offered in evidence the reissued patent granted to one John C. Morris, dated May 27, 1862, as the foundation for the introduction of evidence to show that the machine or machines which they were using were constructed by them under a license from the patentee in that patent, and in

Opinion of the court.

accordance with the specification and claims of that patent as reissued. Seasonable objection was made by the plaintiffs to the introduction of that patent, as evidence in the case, but the court overruled the objection and admitted it in evidence, and the plaintiffs excepted.

Such evidence was inadmissible for the purpose for which it was offered, and should have been excluded, as the novelty of the invention was not open, and because it presented on the question of infringement an immaterial issue not involved in the pleadings, and because the evidence was well calculated to mislead the jury by withdrawing their attention from the real subject matter in controversy. *Corning v. Burden*, 15 How. 271 [6 Am. & Eng. 69].

Apart from the question of damages, two issues only were presented by the pleadings, and they were all which are involved in any similar case.

1. Whether the patentee in the patent on which the suit is founded is the original and first inventor of the alleged improvement, which the plaintiffs in this case established as a *prima facie* presumption when they introduced in evidence the letters patent described in the declaration. *Curtis, Pat.*, sec. 118; *Pitts v. Hall*, 2 Blatchf. 229; *Cahoon v. Ring*, 1 Cliff. 625.

2. Whether the machine of the defendants infringes the plaintiff's machine as described in the specification and claims of their letters patent.

Attempts are often made in the trial of patent cases to introduce such collateral issues on the question of infringement, but they are irregular and cannot be sanctioned, as the only proper comparison, on that issue, is of the defendant's machine with that of the plaintiff, as prescribed in the pleadings. What the jury have to determine is: does the machine of the defendant infringe the machine of the plaintiff? And if it does not, then the defendant is entitled to a verdict; but if it does infringe the plaintiff's

Opinion of the court.

machine, then the plaintiff is entitled to his remedy, and it is no answer to the cause of action to plead or prove that the defendant is the licensee of the owner of another patent, and that his machine is constructed in accordance with that patent.

Controversies between litigants in court cannot be completed in that way, nor should the plaintiff be subjected to such outside issues, as he is clearly entitled to a verdict when he has proved that he is the original and first inventor of his improvement, and that the defendant has infringed his patent. *Curt.*, *Pat.*, secs. 350, 353; *Carver v. Mfg. Co.*, 2 Story, 432.

Suppose the rule in that respect is otherwise, still the judgment of the circuit court must be reversed, as the next exception to be considered is clearly well taken, and the error of the court is of such a character that it cannot be remedied in any other way than by granting a new trial.

Testimony was offered by the defendants to prove the existence and use, in 1858, at Grand Detour, in the State of Illinois, of a machine for bending plow handles similar to a model shown to the witness under examination, and which, as is claimed by the defendants, was the same in its mode of operation as the patented machine of the plaintiffs.

Objection was seasonably made by the plaintiffs to the admissibility of the testimony, but the defendants stating that they expected to connect the same with the other testimony showing that the machine was in public use anterior to the invention described in the plaintiff's patent, the court overruled the objection and admitted the testimony, and the bill of exceptions shows that other testimony was introduced by the defendants tending to prove that the machine described by the witness, or others like it, were in public use at that place before the date of the invention claimed and owned by the plaintiffs.

Evidence to prove such a defense is not admissible in

Opinion of the court.

any case without an antecedent compliance with the conditions specified in the 15th section of the Patent Act. Whenever the defendant relies, in his defense, on the fact of a previous invention, knowledge, or use of the thing patented, "he shall state in his notice of special matter, the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used," and if he does not comply with that requirement no such evidence can be received under the general issue. 5 Stat. at L. 123; Teese v. Huntingdon, 23 How. 10 [7 Am. & Eng. 72].

Unless the rule of law was so the plaintiff might often be surprised at the trial, as he would rely upon the presumption which the patent affords, that he or his assignor or grantor was the original and first inventor of the improvement in question, and would not think it necessary to summon witnesses to rebut the evidence introduced by the defendant attacking the novelty of his patent. Agawam Co. v. Jordan [7 Wall. 596 p 24 *ante*].

Other exceptions to the rulings of the court were taken by the plaintiffs to the same effect, but it is unnecessary to refer to them, as the charge of the court shows, to a demonstration, that the court throughout the trial overlooked the fact that such evidence is not admissible in patent cases, unless it appears that the defendant, thirty days before the trial, gave notice in writing to the plaintiff, or his attorney, of his intention to give such special matter in evidence, as required in the 15th section of the Patent Act, and that the notice given constituted a compliance with the several conditions therein specified.

Compliance with that provision being a condition precedent to the right of the defendant to introduce such evidence, under the general issue, it necessarily follows that the *onus probandi* is on him to show that the required notice was given to the plaintiff thirty days before the trial, and if he fails to do so he cannot introduce any evi-

Dissenting opinion.

dence to controvert the novelty of the patent. Phil. & T. R. R. Co. v. Stimpson, 14 Pet. 459 [4 Am. & Eng. 324]; Silsby v. Foote, 14 How. 222 [5 Am. & Eng. 411]; Phillips v. Page, 24 How. 168 [7 Am. & Eng. 97].

Undoubtedly, the plea of not guilty puts in issue the novelty of the invention as well as the charge of infringement; but the answer to that suggestion, as applied to this case, is that the letters patent, when introduced by the plaintiffs, afforded a *prima facie* presumption that the assignor of the plaintiffs was the original and first inventor of the improvement, and as the defendants had not given to the plaintiffs the required notice that they intended to offer evidence at the trial to overcome that presumption, they had no right to introduce any such evidence, and it necessarily follows that the court had no right to submit any such question to the jury.

Two defenses, said the court, are interposed by the defendants: (1) That the patent is void for the want of novelty. (2) That the machine constructed and used by the defendants does not infringe the patented machine of the plaintiffs; and the charge proceeds throughout upon the ground that both of those defenses were open and were to be determined by the jury.

Extended remarks were made by the judge to the jury, upon the evidence produced by the defendants to impeach the novelty of the invention, and very full explanations were given to them in respect to the principles of law by which they were to be governed in determining that question. Most of the rules of law as stated by the judge are correct, but the difficulty is that no such questions were involved in the pleadings.

Judgment reversed. New venire ordered.

Mr. Justice SWAYNE, (a) dissenting.

I am unable to concur in the conclusion reached by the

8 Wall. 428-429.

(a) Wallace adds, "with whom concurred Grier and Miller, JJ."

Dissenting opinion.

majority of my brethren, and will state briefly the grounds of my dissent.

The judgment is reversed, because no notice of the special masters which were proved to the jury is found in the record. If a sufficient notice had been given to the plaintiffs, according to the statute, the testimony was unquestionably proper to be received. It is shown by the bill of exceptions, that the admission of the evidence was objected to, but upon what ground, except as to one item mentioned hereafter, does not appear. The objection may have had reference to several considerations other than the want of notice. The case was tried in all respects as if no such defect existed. If due notice had not been given, and that fact had been brought to the attention of the learned district judge who tried the case, it cannot be doubted that he would at once have excluded the evidence, or have admitted it only after the defect had been properly supplied. It nowhere appears in the case that such an objection was made in the court below. A series of instructions were asked by the plaintiffs' counsel, and refused by the court; neither of them has any reference to this point. The court was not asked to rule out the evidence, nor to direct the jury to disregard it. The point was not made in this court by the counsel for the plaintiffs in error. Other errors were strenuously insisted upon, but nothing was said upon this subject. Other objections to the admission of the testimony excepted to in the court below were fully discussed here, but there was entire silence as to the want of notice. The discovery that there is no notice in the record, was made after the cause had been argued and submitted to this court, and the objection does not now come from the plaintiffs' in error. It is not of a jurisdictional character.

Upon a careful examination of the record, it seems to me doubtful whether any of the testimony in question required a notice to authorize its introduction, *Corning v. Burden*, 15 How. 252 [6 Am. & Eng. 69], except that of Mitchell,

Notes and Citations.

which was objected to upon a distinct and different ground. But conceding this to be otherwise, under the circumstances, I think these propositions apply :

1. We are bound to presume that a proper notice was before the court below. This suggestion derives additional weight from the fact that the statute requires the notice to be given to the plaintiff, and does not prescribe that it shall be filed in the clerk's office, or made part of the record. In some of the circuits the practice has been heretofore simply to produce and prove it at the trial.

2. If there were no such notice, it was waived by the plaintiffs in error, and they are concluded by their conduct. *Laber v. Cooper*, 7 Wall. 569.

3. The objection not having been made in the court below, according to the settled rule and practice of this court, it can not be made here. *Ibid.*

4. The plaintiffs in error not having made the objection, this court ought not to make and enforce it for them. They have not suffered, and do not complain. The interests of justice do not require such vicarious and voluntary action on the part of this court. The counsel for the defendant in error has had no notice and no opportunity to be heard. I think, therefore, that the judgment ought not to be reversed.

I am authorized to say that my brothers Grier and Miller concur in this question.

8 Wall. 430.

Notes :

1. Patents are *prima facie* evidence of inventorship. See *Agawam Co. v. Jordan*, 7 Wall. 583. (p. 24 *ante.*)
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Notes and Citations.

2. Defendants' patent as evidence of non-infringement.

Corning *v.* Burden, 15 How. 271 [6 Am. & Eng. 69], and
see Livingston *v.* Woodworth, 16 How. 546 [6 Am. &
Eng. 167].

3. Act 1790, sec. 6 ; Act 1793, sec. 6 ; Act 1836, sec. 15 ; Act
1870, secs. 61 and 62 ; R. S. secs. 4920 and 4923.

Failure to object for want of notice.

Planing Machine Co. *v.* Keith, 101 U. S. 479. And see
Roemer *v.* Simon, 95 U. S. 214.

4. Burden of proving statutory notice.

Railroad Co. *v.* Stimpson, 14 Pet. 448 [4 Am. & Eng. 324.]

Patent in suit :

No. 6951. Blanchard, T. December 18, 1849. Reissue No.
853, November 15, 1859. Wood Bending Machine.

OTHER SUITS ON SAME PATENT :

Blanchard *v.* Putnam, 1867, 2 Bond 84. 3 Fish. 186.

Notes and Citations.

Cited :

IN SUPREME COURT IN :

Seymour v. Osborne, 1871. 11 Wall. 516; Bk. 20, L. ed. 33 [p. 290
post].

Roemer v. Simon, 1877. 95 U. S. 214; Bk. 24, L. ed. 384.

Bates v. Coe, 1878. 98 U. S. 31; Bk. 25 L. ed. 68.

IN CIRCUIT COURTS IN :

Goodyear Dental Vulcanite Co. v. Gardner, September, 1870. 3
Cliff. 408; 4 Fish. 224.

Hudson v. Draper, October, 1870. 4 Cliff. 178; 4 Fish. 256.

Roemer v. Simon, April, 1874. 1 Ban. & Ard. 138.

Kelleher v. Darling, September, 1878. 3 Cliff. 424; 3 Ban. &
Ard. 438.

IN TEXT-BOOKS:

2 Abb. Pat. Law, 1886, p. 434.

Walker on Pats., 1883, pp. 335, 348, 370, 383.

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Statement of the case.

JAMES D. BENNETT AND SETH TURNER, APPELLANTS, v. FINLEY F. FOWLER.*

8 Wall. 445-448. Dec. Term, 1868.

[Bk. 19, L. ed. 431; 2 Whit. 231.]

Argued November 10, 1869. Decided November 29, 1869.

Joinder of inventions in one patent. Particular divisional reissued patents sustained.

1. No general rule can be given by which to determine when a given invention or improvements shall be embraced in one, two or more patents. Some discretion must necessarily be left on this subject to the head of the Patent Office. (p. 139.)
2. Where original letters patent No. 27,899, F. F. Fowler, April 17, 1860, Hay Elevator, was reissued in two divisions, Nos. 1,869 and 1,871, February 14, 1865, in the latter of which the lifter was somewhat differently constructed, so as to adapt it specially to the stacking of hay, the divisional reissues were sustained. (p. 140.)
3. Where defendant contends that he does not infringe, he should introduce proof to such effect. (p. 140.)

Appeal from the Circuit Court of the United States for the Northern District of Illinois.

The bill in this case was filed in the court below, by the appellee, to enjoin the defendants from infringing two reissued patents, and for an accounting. The court found for the complainant, and referred the case to a master, to take evidence as to the profits. A final decree having been entered in favor of the complainant, for \$1,500, the defendants took an appeal to this court.

A further statement of the case appears in the opinion of the court.

The following are the patents referred to in the opinion:

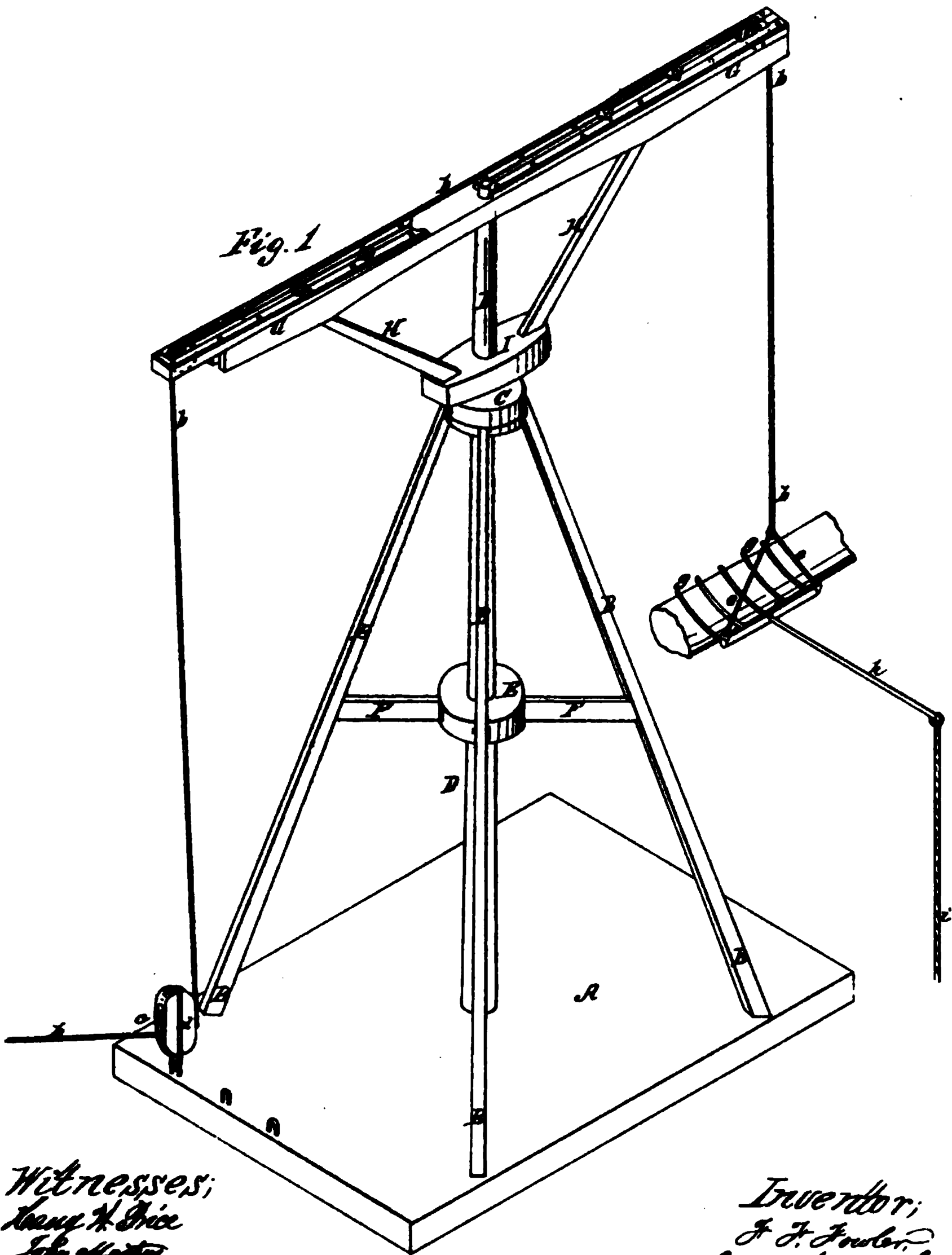
* See Explanation of Notes, page III.

F. F. Fowler,

Derrick,

No 1,869,

Reissued Feb. 14, 1865.



Witnesses;
Saml H. Price
John M. Smith

Inventor;
F. F. Fowler,
By atty A. B. Simpson

Statement of the case.

F. F. FOWLER, OF CRANE TOWNSHIP, OHIO.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. 27,899, dated April 17, 1860 ; reissue No. 1,341, dated September 9, 1862 ; Reissue No. 1,869, dated February 14, 1865.

DIVISION No. 1.

To all whom it may concern :

Be it known that I, F. F. Fowler, of Crane township, county of Wyandotte, State of Ohio, have invented certain new and useful improvements in elevating hay or other similar products ; and I do hereby declare that the following is a full, clear, and exact description of that part of my invention relating to Division No. 1, reference being had to the accompanying drawing, making a part of this specification, in which—

Fig. 1 represents a perspective view of the machine in use.

To make a hay-elevator so simple and perfect as to become a regular agricultural implement requires much skill and invention. In the first place, it must be cheap and simple, and, secondly, it must be portable, easily placed, and staunch to endure the work, without the use guys or stays that have to be set, arranged, or fastened ; and, thirdly, the base of the elevator must not be so broad or long as to interfere with its being brought up close to its work.

The object of my invention is to embrace all these desirable qualities in one apparatus, and this I believe I have effectually done.

My invention consists, first, in the combination of the permanent pyramidal supporting-frame and the revolving or turning cross-bar and its braces with a central supporting piece for steadying and allowing said cross-bar and its braces to turn freely upon the supporting frame.

It further consists in combining with said cross-bar, re-

Statement of the case.

volving upon an under supporting-frame, the so arranging of the hoisting tackle that the weight to be raised shall be upon one end of the cross-bar, while the power to raise it is applied to the opposite end of this bar, so that a small structure may be used that can be conveniently transported or moved, that will occupy but little space, and that will be sufficiently staunch without the addition of guys or braces which require fastening or adjusting.

It further consists in the construction of elevators for hay, of two pyramidal frames, one placed upon the other, the under frame being upright, and the upper one inverted, the apices of both so united that the upper frame may freely turn upon while it is supported by the lower frame.

To enable others skilled in the art to make and use my invention, I will describe its construction and operation.

If the base A of the elevator could be made large enough, the structure would stand without liability to topple over; or if guys or extra braces were used the structure could be made rigid by them, but a large base prevents the machine from being rapidly and closely moved up to its work, and also prevents the hay from being brought up close to the machine, so that that feature is quite objectionable. To use extra guys or braces from the top of the structure would not only interfere with the free turning of the cross-bar, but the trouble of fastening and unfastening them every time the structure had to be moved would prevent the general use of the machine. To get, therefore, a small base, and obviate the use of guys or braces, I so rig the hoisting-tackle as to make it subserve the purpose of guys or braces, and so equalize the load upon the structure as to make it abundantly rigid without any other support than its permanent support on the base, A. From the base A, rise braces B, which point to a common center, their upper ends being fastened into or secured to a head-block. C, and a post, D, centrally placed between the braces, may rise up to or through said head-block, which post may be additionally braced, as at E F. These pieces, B, C, D, E, and F, to-

• Statement of the case.

gether form a pyramidal frame supported by and resting upon the base A.

G is a cross-bar projecting both ways from the central support or post D, and sufficiently far to admit the hay being easily caught upon the fork and raised up or transferred to the stack. From this cross bar braces, H H, incline inward to and are secured to a head-block, I, that rests upon the head-block C, or upon a shoulder formed upon the central support, D, or partially upon both, but so that the cross-bar and its braces may freely turn thereon when necessary to do so. The pieces, G H H, and I, form a second pyramidal frame, but inverted, and its apex, I, rests upon or is so connected with the apex C of the lower pyramidal frame, through the central support, D, as to allow the upper frame to freely turn on while it is supported and guided by the lower frame. Sheaves *a a*, are placed in or on the ends of the cross-bar G, over which the rope *b* is reefed, one end of said rope passing around a sheave, *c*, in a block, *d*, that is hooked to the base A at any convenient point, and to this end of the rope the team or power to raise the hay and turn the same around is connected or attached. The other end of the rope, *b*, is connected by chains or ropes, *e*, to a fork, *f*, having a series of prongs or teeth, *g*, slightly curved, upon which the hay to be elevated is supported. To the handle, *h*, of the fork a line, *i*, is attached, which the attendant holds in his hands, under suitable restraint, until the hay is to be dropped from the fork, when he releases or lets go the line *i*, and the fork will then draw out of the hay or other thing being stacked or housed.

By thus suspending the weight to be raised at one end of the cross-bar, and applying the power to raise that weight at the opposite end of this cross-bar, the tendency of either to topple over the hoisting apparatus is counteracted by the other, the weight and the power being about equal. Any tendency of the cross-bar G, to overbalance is taken by the brace on that side to the head-block I, or to

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the central supporting-post, where it is counteracted, and thus by a comparatively small base, and without fastening the apparatus to the ground by guys, braces, or anchors, it is sufficiently rigid and firm to resist any overturning, while from its lightness and portability it is with ease moved from place to place as may be required. The strength of the under frame is concentrated in its head-block or apex, C. The tendency of the cross-beam G to overbalance is sustained by its head-block or apex, I, and thus both the strength and the strain come upon each other at a central point, where it is easily poised or disseminated.

The machine may be mounted on wheels or runners for the purpose of easily moving it from one place to another, and two or more stacks may be built without changing its position, as the cross-beam can be swung around a full circle and take up and deliver the hay at any point within its circuit of motion.

Having thus fully described the nature and object of my invention, what I claim as new, and desire to secure by Letters Patent, is—

1. In the construction of elevators for hay, the combination of the permanent pyramidal supporting-frame and the revolving cross-bar and its braces with a central supporting-piece for allowing the cross-bar and its braces to turn upon the supporting-frame, substantially in the manner and for the purposes described.

2. In the construction of elevators for hay, in combination with the cross-bar revolving upon an under supporting-frame, the so arranging of the sheaves and hoisting-tackle that the weight to be raised shall be upon one end of the cross-bar while the power to raise that weight is applied to the opposite end of the cross-bar, for the purpose of enabling me to use a small and compact structure that may be easily transported or moved, occupying but little space, and sufficiently rigid within itself without the use of additional guys, braces, or other fastenings, as herein described.

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3. In the construction of elevators for hay, two pyramidal frames, one placed upon the other, the under frame being upright and the upper one inverted, and the head-blocks or apices of both so united as that the upper frame may freely turn upon while it is supported by the lower frame, substantially as described.

F. F. FOWLER.

In presence of—

W. H. KIRBY,

A. W. BRINKERHOFF.

F. F. FOWLER, OF CRANE TOWNSHIP, OHIO.

IMPROVEMENT IN HAY-ELEVATORS.

Specification forming part of Letters Patent No. 27,899, dated April 17, 1860; Reissue No. 1,341, dated September 9, 1862; Reissue No. 1,870, dated February 14, 1865.

DIVISION No. 2.

To all whom it may concern:

Be it known that I, F. F. Fowler, of Crane township, county of Wyandotte, and State of Ohio, have invented certain new and useful improvements in elevating hay and other like products; and I do hereby declare that the following is a full, clear, and exact description of that part of my invention which relates to Division No. 2, reference being had to the accompanying drawings, making a part of this specification, in which—

The figure represents a perspective view of the machine in use.

This invention relates to a contrivance which is especially adapted for use on farms for the purpose of facilitating the stacking of hay and other similar products by admitting of the use of a horse to perform the most laborious part of the work.

Statement of the case.

By my invention I obtain a "labor-saving machine" which can be readily moved about from one place to another, and which will enable a person to stack hay in localities where such work would otherwise be exceedingly inconvenient and laborious.

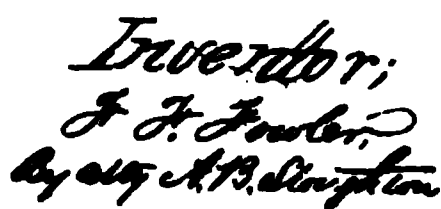
I so construct a machine for the above-mentioned purpose that the same power which is employed to elevate a load of hay will also convey the load over the stack in a position to allow the attendant to deposit it thereon; and while this is the case I also provide for gathering the hay at any side of the machine and depositing it upon a stack, or erecting a stack at any other side of the machine, all as will be hereinafter described.

To enable others skilled in the art to make and use my invention, I will proceed to describe one form of machine by which my invention may be carried into effect.

In the accompany drawings, A represents a platform or base which should be made of sufficient area to give steadiness and solidity to sustain the superstructure for elevating and moving the load of hay to be placed upon the stack. In the center of this base, A, is erected a perpendicular post, D, which is stayed or braced in a rigid position by the inclined stays, B B, which are carried up to a point which is nearer the upper end of said post, D.

G represents a horizontal jib or beam, which is pivoted in any suitable manner to the central post, D, so that it will turn completely round this post; or the beam or jib, G, may be secured rigidly to a central post which is susceptible of rotating. In this case the beam G may be sustained and strengthened by braces framed into it and to the turning post; but if the beam G turns around a fixed post, as I have represented, braces H H, and collar I may be employed. At or near the extreme ends of the beam G, are sheaves, *a a*, over which pass a rope or chain, *b*, to one end of which is attached a fork, *h*, having a guy rope, *i*, attached to its handle, as represented in Fig. 1. This hay-fork is constructed with tines, *g*, and balanced by the bail,

Reissued Feb. 14, 1865.



Statement of the case.

which is connected at its ends to the ends of the fork-head. This bail is the fulcrum of suspension of the fork, the tines being one arm of the lever and the handle the other. Thus the weight of the hay on the tines can be counterbalanced by the power applied to the handle by the attendant who holds the guy-rope *i*, during the operation of elevating a load, as will be further described. The opposite end of the rope, *b*, is carried down and passed through the pulley-block, *d*, and to this end of this rope a horse may be attached for elevating the hay, which is gathered on the fork at the opposite end of the rope.

The operation of my machine is as follows: The stack is built at one side of the pitcher, and the pulley-block or sheave *d*, on the base A; is attached at or near the center of the opposite side of the machine, and the hay to be elevated is deposited at either end of the pitcher. In the operation of elevating the hay the man who handles the fork draws upon it until the cross-top beam swings around and occupies a position parallel with the stack or rick and at right angles to the line of draft or at any required angle. He then plunges his fork into the hay, speaks to the horse to move on, steps back from the hay, and holds the guy-rope *i* in his hand and keeps it sufficiently tight to keep the load off the side of the stack and the beam or jib G in the same position occupied by it when the draft was applied. When the load is sufficiently elevated to pass freely over the stack, the person holding the guy-rope *i'*, slackens his hold on it and allows the beam G, with its loaded fork, to swing around in a line with the line of draft, thus bringing the load over the stack, upon which it is now dropped by the operator releasing the rope *i*.

The operator can hold the beam G until the load of hay is elevated perpendicularly to a sufficient height to pass over the stack, or he can let the load of hay move toward the stack as it is being elevated. In either case the horse or power applied to elevate the load also moves it from the

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point where the fork receives it to the point where it is discharged.

It will be seen that during the operation of elevating a load of hay, which has been gathered on the tines of the fork the operator gradually resists the tendency of the beam G to assume a position in a line with the draft. In other words he pulls against the horse in so far as to enable him to control the movement of said beam, but not to prevent the load from being elevated. The operator can control the movements of the beam G, so long as he retains his hold on the guy rope, *i*, and when a load has been deposited upon a stack he moves the beam G back again, and at the same time takes up the slack rope as the horse backs, so as to get hold of the fork to reload it.

In carrying out my invention the crane or contrivances for elevating the load upon a stack may be mounted upon wheels or rollers to facilitate its portability, but for light structures the wheels may be dispensed with.

I have described the ordinary form of hand-fork in order to show that such a fork may be conveniently used in conjunction with the supporting and elevating contrivances, but I do not desire to confine my invention to such a fork, as others of a different construction may be used if desired.

By my invention it will be seen that the attendant can build up a stack of hay or other like product without much expenditure of labor on his part, the horse being compelled to do the greater part of the work. The beam which sustains the load while it is being elevated also serves as a lever to enable the horse or power applied to elevate this load to move the load to the position for dropping it without the horse stopping or changing the line of draft.

The tendency of the beam G during the operation of elevating a load is to assume a position in a line with the line of draft, from which it was moved at the commencement of the operation to load the fork.

Having thus described my invention, what I claim as new, and desire to secure by Letters Patent, is—

Argument of counsel.

1. So constructing a machine for elevating hay or other like products that the same power employed in elevating said product will also revolve the top of the machine while the load is being elevated or when high enough to pass over the top of the stack, and so that it may be raised from either or any side of the machine and deposited on the stack at any other side and wherever desired, substantially as described.

2. An elevator or crane when constructed as herein described, in combination with a device for grasping hay or other like product and depositing it upon a stack substantially as described.

F. F. FOWLER.

In presence of—

W. H. KIRBY,

A. W. BRINKERHOFF.

Mr. Lewis L. Coburn, for appellants:

The said letters patent are not valid, for the following reasons :

1. That said reissued letters patent are vague and indefinite ; contain descriptions of differently constructed machines, and different results from any described in the original letters patent, and were clearly reissued for the purpose of inserting therein expanded and equivocal claims.

Burr v. Duryee, 1 Wall. 531 [7 Am. & Eng. 224].

2. Although the patentee calls his invention and improvement in elevating hay and other like products, he does not particularly specify and point out the parts, improvements or combinations which he claims as his own, so as to enable the public to know definitely what his claim is.

Curt. Pat., secs. 227, 229-233, 239 ; Evans v. Eaton, 7 Wheat. 356 [4 Am. & Eng. 105] ; Lowell v. Lewis, 1 Mas. 182 ; Kneass v. Schuylkill Bk., 4 Wash. 9 ; Barrett v. Hall, 1 Mason, 447 ; Dixon v. Moyer, 4 Wash. 68 ; Hill v. Thompson, 8 Taunt. 375.

3. He claims so constructing a machine for elevating hay

Argument of counsel.

or other like products, that it will produce certain results, which said results the machine will not produce.

Curt. Pat., secs. 234-242; *Turner v. Winter*, Web. Pat. Cas. 80 [1 Am. & Eng. 43]; *Case v. Brown*, 2 Wall. 320 [7 Am. & Eng. 360].

Messrs. Goodwin, Larned, and Towle, for appellee:

The defendants' machine is a clear infringement of the plaintiff's patents in every particular, and the making and sale of such machines undisputed. A comparison of the models, and an examination of the specifications and drawings of Fowler's patent, leaves no room for doubt on this point.

Nor can the defendants justify under any alleged patent granted to Seth Turner, as set up in the answer. No proof was offered of any such patent; and for the purposes of this case, none can exist.

But if such a patent was in the case it would not aid the defendants; for the addition of a spiral spring or lever at the bottom of the shaft to control the rotation, as an improvement upon Fowler, would give the patentee no right to use the invention of Fowler.

Curt. Pat., 3d ed., sec. 24; *Crane v. Price*, Web. Pat. Cas. 377 [3 Am. & Eng. 437]; *Foss v. Herbert*, 2 Fish. Pat. Cas. 31; *Tilghman v. Werk*, 2 Fish. 242.

2. It is well settled, that either the specification or the claim of the patentee may be amended, no matter how often, when it is discovered to be necessary to describe the invention more precisely, or to make the claim cover the whole invention.

O'Reilly v. Morse, 15 How. 112 [5 Am. & Eng. 483.]; *Battin v. Taggart*, 17 How. 83 [6 Am. & Eng. 242].

The legal presumption is, in all cases, that the reissue is for the same invention as the original patent.

Hussey v. McCormick, 1 Fish. 509; *McLean, J.*; *O'Reilly v. Morse* (*supra*); *Stimpson v. R. R. Co.*, 4 How. 380 [4 Am. & Eng. 398].

In this case there is nothing to rebut the legal presump-

Opinion of the court.

tion, and it affirmatively appears fully and completely in the patents themselves.

Mr. Justice NELSON delivered the opinion of the court.

This is an appeal from a decree of the Circuit Court of the United States for the Northern District of Illinois.

The bill was filed by Fowler to enjoin the defendants from infringing two reissued patents for improvements in hay-elevators, issued 14th February, 1865. The defendants put in an answer setting up various defenses to the bill; but as no proofs were taken in support of it, we need not refer more particularly to it. The complainant filed a replication to the answer.

When the cause was brought on for hearing, no counsel appeared for the defendants. After proof of infringement, a decree was rendered for the complainant, affirming the validity of the patents and the infringement, and referring the cause to a master to take proofs of the gains and profits of the defendants for the use of the machine.

A good deal of testimony was taken before the master on the subject of the gains and profits, counsel on both sides appearing before him. The master reported in favor of the complainant, \$1,860. The counsel took one exception to the report, namely: that part of the allowance for profits against the defendants was for infringements of third persons. The court modified the report in this respect, and reduced the amount to \$1,500.

(a) An objection has been taken by counsel for the defendants that the court erred in affirming the validity of the two patents, Nos. 1,869, 1,870.

It may be, that if the improvements set forth in both specifications had been incorporated into one patent, the patentee taking care to protect himself as to all his improvements by proper and several claims, it would have been sufficient. It is difficult, perhaps impossible, to lay

8 Wall. 447-448.

(a) Wallace begins Opinion here.

Notes and Citations.

down any general rule by which to determine when a given invention or improvements shall be embraced in one, two, or more patents. Some discretion must necessarily be left on this subject to the head of the Patent Office. It is often a nice and perplexing question. It is true, in the present case both patents relate to the lifting and depositing a load of hay in a mow of a barn, or in a rick or shed. But, in No. 1,870 the lifter is somewhat differently constructed, so as to adapt it specially to the stacking of hay, which, doubtless, led the office to divide the improvements and issue separate patents. The improvements were embraced in one, the original patent.

The counsel also objects that the machines of the defendants do not infringe the complainants' patents, but if he had intended to contest this point, he should have introduced proof to this effect. Proof of the infringements given, that the machines made and used by the defendants were substantially like the complainants', was sufficient, if not rebutted. Models were also produced on the argument before the court, which confirm this proof.

Decree below affirmed.

8 Wall. 448.

Notes:

1. Joinder of invention in one patent.

Evans v. Eaton, 3 Wheat. 454 [4 Am. & Eng. 16.]

Hogg v. Emerson, 6 How. 437 [5 Am. & Eng. 1]; 11 How. 587 [5 Am. & Eng. 279].

Clark v. Bousfield, 10 Wall. 133 [p. 245 *post*].

Wells v. Gill, 22 Wall. 1.

Garratt v. Siebert, Bk. 21, L. ed. 956.

Bates v. Coe, 98 U. S. 31.

Parks v. Booth, 102 U. S. 96.

Smith & Griggs Mnfg. Co. v. Sprague, 123 U. S. 249.

Telephone Cases, 126 U. S. 1.

Notes and Citations.

2. Divisional reissue.

Act 1837, sec. 5; Act 1870, sec. 53; R. S. sec. 4,916.

Corn-Planter Patent, 23 Wall. 181 (Diss. opin.).

Powder Co. v. Powder Works, 98 U. S. 126; and see

Elastic Fabrics Co. v. Smith, 100 U. S. 110.

Patent in suit:

No. 27,899. Fowler, F. F. April 17, 1860. Reissues

Nos. 1,869 and 1,870, February 14, 1865. Hay-Elevator.

Cited:

IN CIRCUIT COURTS IN :

Tucker v. Burditt, October, 1879. 4 Ban. & Ard. 569.

McKay v. Dibert, January, 1881. 5 Fed. Rep. 587; 19 O. G.

1351; 11 Reporter, 386.

Smith v. Merriam, January, 1881. 6 Fed. Rep. 713.

Sessions v. Romadka, July, 1884. 21 Fed. Rep. 124.

IN COMMISSIONER'S DECISIONS IN :

Combs, August, 1871. C. D. 1871, p. 209.

Clinton & Knowlton, January, 1876. 9 O. G. 249.

Mefford, November, 1883. 25 O. G. 881.

Herr, October, 1887. 41 O. G. 463.

Notes and Citations,

IN TEXT BOOKS IN :

2 Abb. Pat. Law, 1886, pp. 30, 465.

Curtis on Pats., 4th ed., § 282 d.

Walker on Pats., 1883, p. 369.

Argument of counsel.

HENRY WISE, JR., USE OF HORACE H. DARST
AND WARREN J. NACE, PLAINTIFF, v. ED-
WARD P. ALLIS.*

9 Wall., 787-740. Dec. Term, 1869.

[Bk. 19, L. ed. 784; 2 Whit. 234.]

Argued March 24, 1870. Decided April 25, 1870.

Prior knowledge and use. Statutory notice.

1. A party giving notice of prior knowledge and use, under act 1836, sec. 15, is not bound to be so specific as to the places where the use is shown, as to relieve the other from all inquiry or effort to investigate the facts. If he fairly puts his adversary in the way that he may ascertain all that is necessary to his defense or answer, it is all that can be required. (p. 147.)
2. Where in a suit for infringement of reissued letters patent, No. 786, J. Fairclough, August 2, 1859, (original No. 22,356, December 21, 1858), Balancing Millstones, defendant gave notice in addition to the particular town and city where they were used, the names and residences of witnesses by whom the use was to be proved, but did not specify the mill in which such prior use had been made, *held* that in respect to such large objects as millstones, there was sufficient precision and certainty in the notice. (p. 147.)

[Citations in opinion of the court:]

Teese v. Huntingdon, 23 How. 2 [7 Am. & Eng. 72]. p. 147.

Phillips v. Page, 24 How. 164 [7 Am. & Eng. 97]. p. 147.

On certificate of division of opinion between the Judges of the Circuit Court of the United States for the District of Wisconsin.

A history of the case and a statement of the facts appear in the opinion of the court.

Messrs. J. P. Walker and H. L. Palmer, for plaintiff:
It is insisted and urged here, as it was in the court be-

*See Explanation of Notes, page III.

Argument of counsel.

low, that the notice of defendant is too vague, indefinite and uncertain, to entitle him to give evidence of the alleged prior use of the invention, while it names or designates cities merely, and not the mills where the supposed prior use was made.

In the act of February 21, 1793, there is no requirement that the notice shall specify any place whatever where the invention had previously been used. Notwithstanding this, however, the profession seems to have deemed it proper and fair, if not necessary, in practice or pleading, to name the particular mills where mill machinery was in controversy. This was done in 1816, in *Evans v. Kremer*, Pet. (C. C.) 215, and in 1818, in *Evans v. Eaton*, 3 Wheat. 454 [4 Am. & Eng. 16].

The circuit court in the first, and the Supreme Court in the second of these cases, held the specification of place, that is the mills, to be unnecessary, on the ground alleged by the courts that the act of '93 did not require it.

These rulings, with the consequences, pointed out what was afterwards deemed by Congress a defect in the law. By the year 1836, experience and practice had shown that, without a specification of the place of alleged prior use, patentees were continually surprised by testimony vamped at the trial which it was impossible to anticipate or prepare to meet.

Therefore, in that year, Congress amended the law in this respect by providing, in the 15th section of the act (July 4th) as follows :

“ And whenever the defendant relies in his defense on the fact of a previous invention, knowledge or use of the thing patented, he shall state, in his notice of special matter, the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used.”

Mr. Curtis says : “ This provision was added in consequence of the construction given to the former act (in *Evans v. Eaton*, 3 Wheat. 454) [4 Am. & Eng. 16], to the

Argument of counsel.

effect that notice of the places was not necessary to be given."

Curt. Pat., sec. 272 ; R. R. Co. v. Stimpson, 14 Pet. 448 [4 Am. & Eng. 324].

In that case, after quoting the provisions of the act of 1836, the court says :

"The object of this most salutary provision is to prevent patentees being surprised at the trial of the cause by evidence of a nature which they could not be presumed to know or be prepared to meet ; and thereby subject them either to most expensive delays, or to a loss of their cause."

But it is claimed for defendant in this case, that the notice does specify place ; that Utica, Rochester, Buffalo, Albany, New York City or Brooklyn, is a place. So is England, India, France, Spain or Wisconsin, a place. To refer the plaintiff to New York City, with her population of 1,300,000, and her mills numbered 916, as the place where prior use was made of his invention, is sheer mockery. Reference to the whole State of Wisconsin, Iowa, Minnesota or Kansas, had been to a less number of people or mills, and to a place where search could have been made with far less danger. Under this notice, after plaintiff had traveled from Wisconsin to New York City ; had gone the round of 915 of her mills and returned, after incurring onerous expenses, and finding nothing like his invention—all this within thirty days ; he might still be defeated on the trial by having the fact sprung upon him in evidence that it was the very 916th mill in which his cherished invention was used. Then why not have told him so in the first notice ? He could then have gone to that mill at once. If he had found the notice true, he could have abandoned an unjust suit ; if false, could have prepared to repel a pirate's unjust defense. Yet New York is but one of six large cities named in the notice, to be searched by the plaintiff within thirty days, and a thousand miles away.

The act requires the defendant to state in his notice

Opinion of the court.

where the alleged invention had been used ; meaning, by the term "where," the mill or mills where or in which it was "used."

Mr. Matt. H. Carpenter, for defendant.

Mr. Justice MILLER delivered the opinion of the court.

This is an action for infringement of a patent for an improvement in balancing millstones. The defendant pleaded the general issue, and also gave notice that the invention claimed was well known and in general use before the patentee claims to have invented it, and he specified Utica, Rochester, Buffalo, Albany, New York City and Brooklyn, in the State of New York, as the places where it had been so used, and gave the names of witnesses in each of those places by whom he expected to prove that fact.

On the trial the judges of the circuit court differed in opinion as to whether the notice was sufficiently specific in its reference to the places where the prior use was had, and have certified that difference to us in the shape of two questions, which are really but one, and that is, whether the evidence of use, taken under that notice, was admissible.

(a) The degree of particularity or certainty necessary in pleas and notices is an ever-recurring question in judicial proceedings, and can never be effectually disposed of so long as new and varying circumstances may present the question in new aspects.

The object of the rule is, undoubtedly, to enable the other party to make such answer or response to the matter set up in the plea or notice, either by way of pleading or of evidence, or such cross-examination of the witness of the party setting up the plea or notice as the facts of his case may enable him to do. In other words, to apprise him fairly of what he may expect to meet under the plea

9 WALL. 739.

(a) Wallace begins Opinion here.

Opinion of the court.

or notice. *Teese v. Huntingdon*, 23 How. 10 [7 Am. & Eng. 72].

In the case before us, in addition to the common law rules on this subject, Congress has, for the protection of patentees, (b) enacted that whenever the defendant shall rely on the want of novelty in the invention, he shall give special notice at least thirty days before the trial, in which he shall state the names and places of residence of those by whom he intends to prove a previous use or knowledge of the thing and where the same had been used. With the requirements of this statute the defendant has complied so far as the name and residence of the witnesses are concerned; but it is denied that he has been sufficiently specific as to the places where the use was to be shown. It is said that it is not sufficient to name the city, but that the particular mill in which the invention had been used must be pointed out. But we cannot take judicial notice how many or how few mills using stones may be in any particular locality. In some town there may be but one. Nor do we think that the party giving notice is bound to be so specific as to relieve the other from all inquiry or effort to investigate the facts. If he fairly puts his adversary in the way that he may ascertain all that is necessary to his defense or answer, it is all that can be required, and he is not bound by his notice to impose an unnecessary and embarrassing restriction on his own right of producing proof of what he asserts. We are all, therefore, of opinion that when, in addition to the particular town or city in which such large objects as millstones are used, the name and residence of the witness by whom that use is to be proved is also given, there is sufficient precision and certainty in the notice. *Phillips v. Page*, 24 How. 164 [7 Am. & Eng. 97].

9 Wall. 739-740.

(b) Wallace inserts "made an enactment on the subject" and omits the rest of the sentence.

Notes and Citations.

The questions propounded are accordingly answered: the first in the affirmative, and the second in the negative.

Which is ordered to be certified to the Circuit Court.

9 Wall. 740.

Note :

1. Notice: Act 1790, sec. 6; Act 1793, sec. 6; Act 1836, sec. 15; Act 1870, sec. 61; R. S., sec. 4920.

Definiteness:

Silsby *v.* Foote, 14 How. 218 [5 Am. & Eng. 411].
O'Reilly *v.* Morse, 15 How. 62 [5 Am. & Eng. 483].
Teese *v.* Huntingdon, 23 How. 2 [7 Am. & Eng. 72].
Phillips *v.* Page, 24 How. 164 [7 Am. & Eng. 97].
Agawam Co. *v.* Jordan, 7 Wall. 583 [p. 24 *ante*].
Railroad Co. *v.* Dubois, 12 Wall. 47. [p. 433 *post*].
Roemer *v.* Simon, 95 U. S. 214.
Bates *v.* Coe, 98 U. S. 31.
Craig *v.* Smith, 100 U. S. 226.
Machine Co. *v.* Keith, 101 U. S. 479.
Loom Co. *v.* Higgins, 105 U. S. 580.

Patent in Suit:

No. 22,356. Fairclough, J. December 21, 1858. Reissue
No. 786, August 2, 1859. Balancing Millstones.

Cited:

IN TEXT-BOOKS IN:

2 Abb. Pat. Law, 1886, p. 436.
Walker on Pats., 1883, p. 325.

[illegible]

Syllabus.

THE PROVIDENCE RUBBER COMPANY, APPELLANT, v. CHARLES GOODYEAR, Executor of CHARLES GOODYEAR, Deceased, THE UNION INDIA RUBBER COMPANY AND THE PHOENIX RUBBER COMPANY.*

9 WALL. 788-804. Dec. Term, 1869.

[Bk. 19, L. ed. 566; 2 Whit. 237.]

Affirming Goodyear v. Providence Rubber Co., 2 Cliff. 351.

Argued December 14-18, 1869. Decided February 7, 1870.

Executor. Right of action. Reissue to executor. Construction of patents. Particular process and product patents construed. Patentability. Patent cannot be collaterally attacked for fraud. Particular license construed. Marking patented articles. Accounting for profits. Allowances. Profits.

1. Neither the Federal nor the State tribunals either at law or in equity can recognize the authority of an executor any more than that of an administrator, and neither will aid him to obtain possession and control of the estate, until he has qualified in the manner as prescribed by the statutory provisions of the State. (p. 170).
2. Where of several executors appointed by a will, one only who had qualified as such, brought suit on the patent, *held* that by the settled rules of common law he was entitled to maintain it. (p. 171.)
3. Where pursuant to Act 1836, sec. 13, a reissue is granted an executor as such, he can sustain a suit on the patent in all respects as if he had been designated in it as *trustee* instead of executor. (p. 171.)
4. Objections to the authority of an executor to sue on letters patent in his representative character, should be taken by a plea in abatement. (p. 171.)
5. Where no issue such as the defense now set up was tendered to complainants, and they had no notice that such a defense was

*See Explanation of Notes, page III.

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- intended to be relied upon, *held* that the proofs without the requisite allegations were unavailing, and the defense could not be entertained. (p. 172.)
6. *Held* that Charles Goodyear was the first and original inventor of the process described in reissue letters patent granted his executor No. 1,084 product and 1,085, November 20, 1860, India-Rubber Process, original patent No. 3,633, June 15, 1844. (p. 172.)
 7. A patent should be construed in a liberal spirit, to sustain the just claims of the inventor. (p. 175.)
 8. Where on surrender of reissued letters patent No. 156, C. Goodyear, December 25, 1849, processes for the manufacture of India-rubber, claiming (1) "the curing of caoutchouc or india-rubber by subjecting it to the action of a high degree of artificial heat," and (2) "The preparing and curing the compound of india rubber, sulphur and a carbonate of other salt or oxide of lead by subjecting the same to the action of artificial heat," a reissue of the same for the product was granted. No. 1,084, November 20, 1860 claiming "the new manufacture of vulcanized India rubber (whether with or without other ingredients), chemically altered by the application of heat" it was sustained as within the right of patentee or his representatives to enlarge or restrict the claim, so as to give it validity and secure the invention. (p. 175.)
 9. The patentability of process and product considered, and *held* that the product claimed in the reissued letters patent No. 1,084, C. Goodyear, November 20, 1860, was patentable independently of the process. (p. 175.)
 10. Where in suit for infringement, the question of fraud in procuring the extension of the patent was raised, *held* that letters patent cannot be abrogated for fraud in any collateral proceeding except in cases of interferences (Act 1836, sec. 16). (p. 176.)
 11. A license granted C. Goodyear, "his executors, administrators and assigns to "use a patented invention" at his own establishment, but not to be disposed of to others for that purpose without the consent of the said C. Goodyear," construed not to

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authorize its use in an establishment owned by Goodyear together with others. (p. 178.)

12. In taking the account of damages the master is not limited to the date of the decree. In such cases it is proper to extend the account down to the time of hearing before him, unless the infringement ceased prior to that time. (p. 180.)
13. Where on an accounting before a master it was objected that the word "patented" with date was not affixed to the article as required by Act 1861, sec. 2, no such issue having been made by the pleadings, *held* that it was too late to raise it before the master, and it must be deemed waived. (p. 181.)
14. The decree of the Circuit Court "for all the profits made in violation of the rights of the complainants, under the patent aforesaid, by respondents, by the manufacture, use, or sale of any of the articles named in said bill," is correct. (p. 182.)
15. Master's refusal on accounting for profits, to allow the deduction of extraordinary salaries, being satisfied they were dividends of profits under another name, sustained. Also his refusal to allow the value, at the time they were used, of articles bought for the purposes of infringement. (p. 183.)
16. Master's refusal on an accounting for profits, to allow the deduction of manufacturers' profits and interest on capital stock approved. (p. 184.)
17. Profits are the gain made upon any business or investment, when both the receipts and payments are taken into the account. Rule stated for estimating cost in order to find the difference between cost and yield, in an accounting for profits for infringement. (p. 184.)

[Citations in opinion of the court:]

- Harrison v. Nixon, 9 Pet. 483. p. 172.
 Foster v. Goddard, 1 Black, 506. p. 172.
 Tripp v. Vincent, 3 Barb. Ch. 613. p. 172.
 Boone v. Chiles, 10 Pet. 177. p. 172.
 Corning v. Burden, 15 How. 252 [6 Am. & Eng. 69]. p. 175.
 Battin v. Taggart, 17 How. 74 [6 Am. & Eng. 243]. p. 175.
 Jackson v. Lawton, 10 Johns. 22; 1 Hen. & Munf. 19, 187. p. 177.
 Alexander v. Greenup, 1 Munf. 134. p. 177.
 Field v. Seabury, 19 How. 323. p. 177.
 Foley v. Harrison, 15 How. 433. p. 178.

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Livingston v. Woodworth. 15 How. 546 [6 Am. & Eng. 167]. p. 182.

Dean v. Mason, 20 How. 198 [6 Am. & Eng. 361]. p. 182.

Lupton v. White, 15 Vesey, 432. p. 184.

Copeland v. Crane, 9 Pick. 73. p. 184.

Dexter v. Arnold, 2 Sumn. 108. p. 184.

Miller v. Whittier, 36 Maine, 577. p. 184.

People v. Super. Niag., 4 Hill 20. p. 184.

Appeal from the Circuit Court of the United States for the District of Rhode Island.

The history and facts of the case fully appear in the opinion of the court.

The letters patent referred to in the opinion of the Court are the following :

CHARLES GOODYEAR, OF NEW YORK, N. Y.

IMPROVEMENT IN INDIA-RUBBER FABRICS.

Specification forming part of Letters Patent No. 3,633, dated June 15, 1844.

To all whom it may concern :

Be it known that I, Charles Goodyear, of the city of New York, in the State of New York, have invented certain new and useful Improvements in the Manner of Preparing Fabrics of Caoutchouc or India-Rubber; and I do hereby declare that the following is a full and exact description thereof.

My principal improvement consists in the combining of sulphur and white lead with the india-rubber, and in the submitting of the compound thus formed to the action of heat at a regulated temperature, by which combination and exposure to heat it will be so far altered in its qualities as not to become softened by the action of the solar ray or of artificial heat at a temperature below that to which it was submitted in its preparation—say to a heat of 270° of Fah-

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renheit's scale—nor will it be injuriously affected by exposure to cold. It will also resist the action of the expressed oils, and that likewise of spirits of turpentine, or of the other essential oils at common temperatures, which oils are its usual solvents.

The articles which I combine with the india-rubber in forming my improved fabric are sulphur and white lead, which materials may be employed in varying proportions; but that which I have found to answer best, and to which it is desirable to approximate in forming the compound, is the following: I take twenty-five parts of india-rubber, five parts of sulphur, and seven parts of white lead. The india-rubber I usually dissolve in spirits of turpentine or other essential oil, and the white lead and sulphur also I grind in spirits of turpentine in the ordinary way of grinding paint. These three articles thus prepared may, when it is intended to form a sheet by itself, be evenly spread upon any smooth surface or upon glazed cloth, from which it may be readily separated; but I prefer to use for this purpose the cloth made according to the present specification, as the compound spread upon this article separates therefrom more cleanly than from any other.

Instead of dissolving the india-rubber in the manner above set forth, the sulphur and white lead, prepared by grinding as above directed, may be incorporated with the substance of the india-rubber by the aid of heated cylinders or calender-rollers, by which it may be brought into sheets of any required thickness; or it may be applied so as to adhere to the surface of cloth or of leather of various kinds. This mode of producing and of applying the sheet caoutchouc by means of rollers is well known to manufacturers. To destroy the odor of the sulphur in fabrics thus prepared, I wash the surface with a solution of potash, or with vinegar, or with a small portion of essential oil or other solvent of sulphur.

When the india-rubber is spread upon the firmer kinds of cloth or of leather it is subject to peel therefrom by a

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moderate degree of force, the gum letting go the fiber by which the two are held together. I have therefore devised another improvement in this manufacture by which this tendency is in a great measure corrected, and by which, also, the sheet gum, when not attached to cloth or leather, is better adapted to a variety of purposes than when not prepared by this improved mode, which is as follows: After laying a coat of the gum, compounded as above set forth, on any suitable fabric I cover it with a bat of cotton-wool as it is delivered from the doffer of a carding machine, and this bat I cover with another coat of the gum—a process which may be repeated two or three times, according to the required thickness of the goods. A very thin and strong fabric may be thus produced, which may be used in lieu of paper for the covering of boxes, books, or other articles.

When this compound of india-rubber, sulphur, and white lead, whether to be used alone in the state of sheets or applied to the surface of any other fabric, has been fully dried, either in a heated room or by exposure to the sun and air, the goods are to be subjected to the action of a high degree of temperature, which will admit of considerable variation—say from 212° to 350° of Fahrenheit's thermometer, but for the best effect approaching as nearly as may be to 270° . This heating may be effected by running the fabrics over a heated cylinder; but I prefer to expose them to an atmosphere of the proper temperature, which may be best done by the aid of an oven properly constructed with openings through which the sheet or web may be passed by means of suitable rollers. When this process is performed upon a fabric consisting of the above named compound it must be allowed to remain upon the cloth on which it is made, in order to sustain it, as it is so far softened during the operation as not to be capable of supporting its own weight without such aid. If the exposure be to a temperature exceeding 270° , it must continue for a very brief period.

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Having thus fully described the nature of the process by which I prepare my improved india-rubber fabric, I do hereby declare that I do not now claim the combining of sulphur with the caoutchouc, either in the proportion named or in any other, this combination having been the subject of a patent granted to me on the 24th of February, 1839 ; but

I do claim—

1. The combining of the said gum with sulphur and with white lead, so as to form a triple compound, either in the proportions herein named or in any other within such limits as will produce a like result ; and I will here remark that although I have obtained the best results from the carbonate of lead, other salts of lead or the oxides of that metal may be substituted therefor, and will produce a good effect. I therefore under this head claim the employment of either of the oxides or salts of lead in the place of the white lead in the above-named compound.

2. The formation of a fabric of the india-rubber by interposing layers of cotton-batting between those of the gum, in the manner and for the purpose above described.

3. In combination with the foregoing, the process of exposing the india-rubber fabric to the action of a high degree of heat, such as is herein specified, by means of which my improved compound is effectually changed in its properties so as to protect it from decomposition or deterioration by the action of those agents which have heretofore been found to produce that effect upon india-rubber goods.

CHARLES GOODYEAR.

Witnesses :

THOS. P. JONES,
B. R. MORSELL.

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CHARLES GOODYEAR, OF NEW HAVEN, CONNECTICUT, EXECUTOR OF CHAS. GOODYEAR, DECEASED.

IMPROVEMENT IN THE MANUFACTURE OF CAOUTCHOUC.

Specification forming part of Letters Patent No. 3,633, dated June 15, 1844 ; extended seven years ; Reissue No. 156, dated December 25, 1849 ; Reissue No. 1,084, dated November 20, 1860.

To all whom it may concern :

Be it known that Charles Goodyear, late of the city of New Haven, in the State of Connecticut, did invent a certain new and useful Manufacture of Caoutchouc or India-Rubber, not known or used by others before his invention or discovery ; and I do hereby declare that the following is a full, clear, and exact description of the principle or character which distinguishes it from all other things known before.

Caoutchouc or india-rubber in its native state possesses in a high degree the valuable quality of elasticity, and the capacity to resist the penetrating power of water ; but its sensibility to the dissolving power of heat, the hardening power of cold, and its loss of permanent elasticity under pressure or tension diminished its practical utility in the arts. Charles Goodyear succeeded in producing a new manufacture, substance, or product in which all the properties and qualities of native caoutchouc or india-rubber are vastly improved and all the natural defects of that material are remedied, so that the new manufacture or substance is water-proof, permanently and highly elastic under all conditions of its use, and at the same time insensible to the effects of any fluctuation in temperature to which in common use the articles made of the new manufacture are likely to be subjected, as well as in some measure to the destructive effects of many of the essential oils and acids.

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The following description of a process by which the new manufacture or substance may be produced will enable persons skilled in the art to produce it.

Twenty-five parts, by weight, of native caoutchouc or india-rubber, and five parts of sulphur may be combined or mixed, either by grinding them together in a machine well known to the trade for that purpose, or by dissolving the rubber in any of its known solvents, and adding the sulphur in a powdered form, and then drying the mixture so as to evaporate the solvent. The composition thus made of india-rubber and sulphur must then be subjected to the action of a high degree of heat—say from 212° to 350° Fahrenheit—which may be applied in a variety of ways, one of which is by the use of an oven capable of being heated up gradually to the desired temperature— 270° of Fahrenheit being about the best. It is found in practice that the desired result will be produced by exposing the material to the heat for a length of time varying according to the temperature and the thickness of the mass to be cured. An exposure to the heat of from two to six hours is generally found sufficient. The result of this process thus applied will be a new manufacture, substance, or product somewhat similar in general appearance to native india-rubber, but having qualities or properties possessed by no other known substance or material, and of very great value in the arts.

For many purposes the manufacture is improved by the addition of other substances, than sulphur, among which white lead is one of the best, and which, when used, may be combined in the mixture above described in the proportion of seven parts, by weight, thereby forming a triple compound. Other salts of lead may be used with advantage, and coloring matter may be also incorporated with the mixture for the purpose of imparting colors to the product; and other materials—such as cotton, silk, wool, or leather—may be incorporated or combined with the india-rubber and sulphur, thereby modifying the strength, elasticity, or

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other qualities of the new manufacture for particular purposes, as it is found that the new substance or product will be produced whenever the essential elements of rubber, sulphur, and heat are used, whether such other materials are incorporated or not.

In subjecting the india-rubber to heat for the purposes described, sulphur may be used or incorporated with or applied to the caoutchouc in a variety of ways, either in a gaseous, liquid, or solid form ; but its presence in some form at sometime during the application of the heat is essential to the production of the new manufacture which Charles Goodyear invented, although it is found that the effect will be produced by the use of very small quantities of sulphur. In practice, however, for most purposes the proportion mentioned in this description will be found sufficiently accurate for good results. Before subjecting the mixture to the action of heat it is obvious that it may be molded into such shape as may be needed, and in that shape converted into the new manufacture or substance called "vulcanized india-rubber."

What is claimed as the invention of Charles Goodyear, deceased, is—

The new manufacture called "vulcanized india-rubber," which is a combination of india-rubber with sulphur, (whether with or without other ingredients), chemically altered by the application of heat, substantially as described.

CHAS. GOODYEAR.

In presence of—

EDW. N. DICKERSON,
JAMES A. DORR.

Messrs. James H. Parsons, C. Cushing, J. S. Black, J. A. Garfield, Abraham Payne and W. W. Boyce, for appellant.

It is a general rule that if there are two or more executors, and one prove the will, they must all join in bring-

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ing actions; and if they do not, the defendant may plead in abatement that there are executors not named.

Wankford *v.* Wankford, 1 Salk. 308; 2 Selwyn's Nisi Prius, 803; Williams on Executors, 235, *n.* 2; 3 Bacon's Abridg. 33; 1 Saunders on Plead. & Ev. 1111; 1 Chitty Plead. 13.

Says Chief Justice Savage in Bodle, Acting Executor *v.* Hulse, 5 Wend. 313. "Where there are several executors they must all join, even though some renounce."

Second. That the objection that the appellants were estopped from denying the validity of the Goodyear vulcanizing patent because they were licensees under it has no force is abundantly shown by the following authorities:

Brooks *v.* Stolley, 3 McL. 526; Lawson *v.* Tremere, 1 Adol. & E. 792; Bowman *v.* Taylor, 2 Adol. & E. 278; Bowman *v.* Rostrom, 2 Adol. & E. 295; Hayne *v.* Maltby, 3 Term R. 438; Cutler *v.* Bower, 22 L. J. (N. S.) 194.

But the patent is also invalid because merchantable goods cannot be manufactured according to the terms of its specification. Other materials are necessary to be added. And the strongest proof of this is that the executor, in applying in 1860, for a reissue, claimed in the proposed new specification "all other ingredients." The patent is also invalid because Goodyear was not its original inventor.

Third. The reissues Nos. 1,084 and 1,085 granted to Charles Goodyear, Jr., claiming to be the executor of Charles Goodyear, deceased, were invalid, because they claim more than the original invention. See O'Reilly *v.* Morse, 15 How. 62 [5 Am. & Eng. 483]. The whole subject of "the reissue of valid patents with expanded and equivocal claims," has been thoroughly and exhaustively discussed in the opinion of Judge Grier, in the case of Burr *v.* Duryee, 1 Wall. 531 [7 Am. & Eng. 224].

Upon the several questions raised upon this point, the court is further referred to the following authorities:

Law's Am. Dig. 260, 261; Whittemore *v.* Cutler, 1 Gall. 480; Stone *v.* Sprague, 1 Story 262; Hall *v.* Wiles, 2 Blatch.

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200; Tatham v. LeRoy, 2 Blatch. 492; Kneass v. Schuylkill Bank, 4 Wash. 12; Battin v. Taggert, 1 Wall. jr. 101; Carver v. Hyde, 16 Pet. 519 [4 Am. & Eng. 367]; LeRoy v. Tatham, 14 How. 175 [5 Am. & Eng. 313]; Corning v. Burden, 15 How. 268 [6 Am. & Eng. 69].

Fourth. The appellants also claim that the process by which their goods have been made violates no rights of the appellees, because in their combination they use other materials not described nor suggested by Goodyear.

Fifth. The extension of the 14th day of June, 1858, of the patent granted to Charles Goodyear was procured by said Goodyear upon a false and fraudulent representation, for the purpose of deceiving the public.

It has been held that if a defect or concealment in a specification arose from intention to deceive the public, it voids the patent.

Whittemore v. Cutter, 1 Gall. 487; Odiorne v. Winkley, 2 Gall. 55. The degree of evidence necessary to prove the fraudulent intent was left for a jury to decide.

Gray v. James, Pet. C. C. 401; Whitney v. Emmett, Bald. 309; Stimpson v. West Chester R. R., 4 How. 404 [4 Am. & Eng. 398].

Sixth. The alleged extension of 1858 was invalid for the reason that the Goodyear vulcanizing patent had expired, and was not in existence at the time the alleged extension was granted.

Seventh. The refusal of the Circuit Court of Rhode Island to grant the motion made by the appellants, that the principal issues of fact in this suit be tried by a jury was erroneous, and such refusal is good ground of appeal. Courts of equity have for a great number of years, when questions of fact have been *disputable*, thought it a more proper exercise of their jurisdiction to have them tried by a jury.

Dawson v. Carter, 9 Mod. 9; O'Connor v. Cook, 8 Vesey, 535; Dexter v. Prov. Acq. Co., 1 Story 387.

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A jury will be ordered when such a course will be most conducive to the ends of justice.

New Orleans Co. *v.* Dudley, 8 Paige, Ch. R. 452; Belknap *v.* Trimble, 3 Paige 601; East Indian Co. *v.* Donald, 9 Vesey, 274; Garwood *v.* Eldridge, 1 Greene, Ch. 204.

If important rights are depending on questions of fact, a feigned issue may properly be awarded.

Apthorp *v.* Comstock, 2 Paige, 482; Bishop of Winchester *v.* Fermier, 2 Vesey, 446; Hampson *v.* Hampson, 3 Vesey & B. 43.

See further as to the general principle—

McFerran *v.* Taylor, 3 Cranch 270; Field *v.* Holland, 6 Cranch. 8; Brackett *v.* Brackett, 3 How. 691; McLaughlin *v.* Bank of Potomac, 7 How. 220; Gray *v.* James, Pet. C. C. 401; Whitney *v.* Emmett, Bald. 309; Allen *v.* Blunt, 2 Wood. & M. 118.

The authorities are ample to the point that the questions suggested on this issue are proper for a jury.

Davis *v.* Palmer, 2 Brock. 308; Reutgen *v.* Kanowers, 1 Wash. 171; Park *v.* Little, 3 Wash. 197; Whitney *v.* Emmett, Bald. 311; Carver *v.* Braintree Co., 2 Story, 441; Parker *v.* Stiles, 5 McLean, 55; Battin *v.* Taggert, 17 How. 85 [6 Am. & Eng. 242]; Stimpson *v.* Westchester R. R., 4 How. 404 [4 Am. & Eng. 398].

The appellants also aver that the manufacture and sale by them of the articles alleged to be made in infringement of the rights of the appellees, between the 22d day of November, 1864, and 2d of December of same year, did not constitute a contempt of court, and that the sale and lease of their materials and factory to the Columbian Co., were made in good faith and were legal and valid.

The general rule of damages adopted by the Master and sustained by the court was wholly erroneous. The rule for damages in patent cases, so far as it is established, is simply that complainants shall be indemnified, and the parties are not accountable for profits which they *might have made* by the use of a patent.

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See Knight v. Gavitt, cited in Law's Am. Dig. 233, § 30; Livingston v. Woodworth, 15 How. 546 [6 Am. & Eng. 167]; Dean v. Mason, 20 How. 198 [6 Am. & Eng. 361].

In Suffolk Co. v. Hayden, 3 Wall. 320 [7 Am. & Eng. 405], the court decidedly intimate that a patent or license fee is a fair means by which to arrive at the measure of damages. See also Hill v. Evans, 8 Jurist (N. S.) 525; Crowley v. Derby Gas Co., 1 R. & M. 166 (n); Holland v. Fox, 3 Ellis & B. 977; Newton v. Grand Junc. R. Co., 5 Exch. W. H. & G. 831; Betts v. DeVitre, 11 Jurist, N. S. 9.

Mr. Ackerman, for Appellees:

If the appellants wished to raise the question, "That said Charles Goodyear was never duly and legally qualified as executor of the last will and testament of Charles Goodyear, deceased," they should have done so by plea in abatement, not having done that, they are precluded from raising it in any other way. "If the plaintiffs were not executors, that objection should have been taken by way of abatement, and does not arise upon a demurrer in bar."

Childress v. Emory, 8 Wheat. 671; Kane v. Paul, 14 Pet. 33.

The reissue of letters patent to the executor or administrator, by the Commissioner of Patents is *conclusive that such executor has been duly appointed.*

Woodward v. Hall, 1 W. & M. 254.

Charles Goodyear, jr., being the only person who had received letters testamentary from the judicial power of the State of New York, which was the domicil of the testator at the time of his death, went to Washington and surrendered this patent and obtained a reissue.

The grant was made to Charles Goodyear, Jr., executor, and to him alone could the grant be made because the patent laws of the United States recognize in various ways the right of executors and administrators. The original grant is to the patentee, his executors and administrators; and it has been decided that an executor or administrator may

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surrender a patent; that he may also obtain an extension of a patent. It was so held in the Woodworth case.

The appellants aver that the reissued patents on which the suit is founded are invalid, because the description of the alleged invention, as contained in the respective specifications, is not set forth in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains, to practice the invention.

The answer of appellants contained two averments which *estopped* from raising this question.

Kinsman v. Parkhurst, 18 How. 293 [6 Am. & Eng. 273].

At page 102 is this averment: "They have from time to time been engaged in manufacturing and vending india-rubber boots and shoes as by *the terms of said pretended license, they* were permitted to do." The license requires that all the boots and shoes shall be stamped with the words, "Goodyear's Patent."

The objection to patent No. 1,084, which is for the product called vulcanized india-rubber, raised and urged before the circuit court, was to the words in the claim "whether with or without other ingredients." This patent is sustained by the decisions of this court, which hold that patents for inventions are to receive a liberal construction, and under the fair application of the rule, *ut res magis valeat quam pereat*, are, if practicable, to be so interpreted as to *uphold*, and not to destroy, the right of the inventor.

Turrill v. Railroad Co., 1 Wall. 510 [7 Am. & Eng. 202]; Corning v. Burden, 15 How. 269 [6 Am. & Eng. 69]; Winans v. Denmead, 15 How. 341 [6 Am. & Eng. 107].

Respecting this very Goodyear's patent, his Honor, Mr. Justice Grier, decided "that if an original patent include two inventions, and its validity on that account is doubted, a separate renewal is just and proper."

Goodyear v. Day, MS. 1862.

As the Commissioner's decision, extending the patent, was that of a special tribunal with full power to examine

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and decide, and there being *no* provision for an appeal to any other jurisdiction, *the decision is final* within the law.

Foley v. Harrison, 15 How. 433; Patent Laws of 1836, Chapter 357, sec. 18.

Fraud or no fraud in the extension, appellants are precluded from even suggesting the point. In equity, as at law, fraud and injury must concur, to furnish ground for judicial action.

Clark v. White, 12 Pet. 196; Jackson v. Eaton, 20 John. R. 478; Story, Eq. Jurisp., sec. 203.

If there was any fraud they knew about it, and aided in its perpetration.

Sar. & Schy. R. R. v. Row, 24 Wend. 74.

Fraud cannot be conceived, it must be proved and expressly found; it cannot be presumed.

Clark v. White, 12 Pet. 196; Henry v. Henry, 8 Barb. 588.

The only question of importance for the Master to decide was, what was *the profit* on the goods made. He has done this, whether correctly or not, is the question for this tribunal to determine, knowing all the circumstances of the case. When a party comes into a court of chancery seeking equity, he is bound to do justice and not ask the court to become the instrument of iniquity.

King v. Hamilton, 4 Pet. 328; Bein v. Heath, 6 How. 247.

A chancellor will not permit a party to plead *his own fraud* to defeat the equity of the complainant.

Union Bank of La. v. Stafford, 12 How. 341.

That the record shows it to be an impossibility, accurately to determine what profits appellants made on the goods they had a right to make, and on those they were forbidden to make, by reason of the fact, that they never kept *independent or separate accounts* of the two kinds of business. That the failure to keep such accounts was a fraud upon the court—upon the parties complainant.

The master adopted the mode which is, as the total sales of merchandise are to the total sales of patented articles,

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so are the total profits of the whole business to the profits of patented articles.

As appellants fail to take any exception to the foregoing findings, we assume that they are conclusive upon this court by its repeated decisions.

Canal Co. v. Gordon, 6 Wall. 568.

“According to the rules of the circuit court the parties were allowed a certain time within which to file exceptions, and failing to do so, the amounts found by the master are to be taken as conclusive. The *finding* of the master is *as conclusive here* as it was in the court *below*.”

See, also, Hudgkins v. Kemp, 20 How. 45, 53; McMicken v. Perin, 18 How. 507; Harding v. Harndy, 11 Wheat. 126; Brockett v. Brockett, 3 How. 691; Story v. Livingston, 13 Pet. 359.

That appellants had no intention, either of keeping or rendering an account is evident from the manner in which they did business. In Hart v. Ten Eyck, 5 John's Ch. R. 108.

“An agent is bound to keep the property of his principal distinct from his own; if he mixes it up with his own the whole will be taken, both at law and in equity, to be the property of the principal until the agent puts the subject-matter under such circumstances that it may be distinguished as satisfactorily as it might have been before the unauthorized mixture on his part.”

“Courts of equity do not, in these cases proceed upon the motion that strict justice is done between the parties; but upon the ground that it is *the only justice that can be done*; and that it would be *inequitable to suffer the fraud or negligence* of the agent to *prejudice* the rights of his principal.”

Story's Eq. Jurisp., § 468; Foster v. Goddard, 1 Black, 506; Copeland v. Crane, 9 Pick. 79; Miller v. Whittier, 36 Me. 588; Lupton v. White, 15 Vesey, 432.

“The master having no certain and reliable data on which to proceed, he was authorized to exercise a sound

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discretion upon the whole evidence presented, and so to state his account as to do justice to all parties, as nearly as practicable. The appellants, who by their negligence have caused this necessity, are not in a position to complain."

Dexter v. Arnold, 2 Sumn. 108; Miller v. Whittier, 36 Me. 585.

Although respondents were entitled to *all profits* appellants could not clearly distinguish as being the proceeds of their legitimate business (which the records prove to have been an impossibility), the report shows that the master only allowed respondents such profits as were ascertained by the rule, proposed by appellants.

If the court is not inclined to rest its judgment upon these broad and well-settled principles, it is then submitted that the master's report is correct as it stands, and should be confirmed by reason of its own statements.

The order of the court modifying the injunction and permitting appellants to continue the manufacture and sale of respondents' goods rested on the obligation thereby imposed on appellants, of keeping such an account as would enable the court to do substantial justice in case it decided appellants to be infringers.

The court therefore reposed a *confidence* in appellants for the benefit of respondents, and that is a trust.

Willard's Eq. Jurisp. 186, 604; Allen v. Blunt, 1 Blatch. 487; 8 Tomlin's Brown's P. C. 42-6-64.

The court decided the appellants were infringers; all the profits therefore received by them by reason of such infringement was the property of respondents, and should be accounted for as such property.

Story's Eq., § 465; Allen v. Blunt, 1 Blatch. 487; Dean v. Mason, 20 How. 198 [6 Am. & Eng. 361].

Nothing can be more just than the principles which govern a court of equity in relation to purchases made by the trustee of the trust property. In Wormley v. Wormley, 8 Wheat. 441, Mr. Justice Story says: "*No rule is*

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better settled than that a trustee cannot become a purchaser of the trust estate." He cannot at once be vendor and vendee. He cannot represent in himself two opposite and conflicting interests. And in *Michoud v. Girod*, 4 How. 555, the court says: "The law prohibits a party from purchasing on his own account, that which his duty or trust requires him to sell on account of another."

Davoe v. Fanning, 2 John. Ch. 252; *Gardner v. Ogden*, 24 N. Y. 327.

In *Docker v. Somes*, 2 Mylne & Keen. 664, Lord Brougham says: "Wherever a trustee violates his duty and deals with the trust estate for his own behoof, the rule is that he shall account to the *cestui que trust* for all the gain he has made."

The master, in his account, allowed the appellants their legitimate salaries. He finds that the extra salaries paid them were in reality *dividends*. This *fact* the appellants sought to conceal by entering it on their books as "merchandise to sundries." Being wrong doers they certainly are not to have extra pay. *Dean v. Mason*, 20 How. 198 [6 Am. & Eng. 361].

Mr. Justice SWAYNE delivered the opinion of the court.

This is an appeal in equity from the decree of the Circuit Court of the United States of the District of Rhode Island. The appellees were the complainants in the court below. The defendants were the appellants, and William W. Brown, Edwin M. Chaffee and Augustus O'Bourn. The bill alleges that a patent for "a new and useful improvement in india-rubber fabrics" was originally granted to Charles Goodyear, deceased, on the 15th of June, 1844; that this patent was surrendered, and that on the 15th of June, 1849, a patent was reissued to the original patentee, "for a new and useful improvement in processes for the manufacture of india-rubber;" that it was extended by the Commissioner of Patents on the 14th of June, 1848;

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that this patent was surrendered by Charles Goodyear, Jr., executor of Charles Goodyear, deceased, and reissued to him as executor on the 20th of November, 1860, in two patents, one entitled, "for improvement in the manufacture of caoutchouc," and the other "for improvement in the art of preparing caoutchouc;" that the complainants, other than Charles Goodyear, Jr., are the assignees of licensees of Charles Goodyear, deceased; that the complainants have the exclusive right to manufacture and sell army and navy equipments made of vulcanized india-rubber, including vulcanized india-rubber blankets, coats, clocks, cloth, clothing, ponchos for army, navy, and other purposes, and also of vulcanized india-rubber bulbs, to be used in the manufacture of syringes; and that the defendants have infringed the patents by the manufacture and sale of these articles.

The prayer of the bill is for an injunction and an account.

The answer denies that Goodyear was the original and first inventor of the improvement described in the original patent. It denies, also, the infringement alleged in the bill. It sets up as special defense that only one of the persons named in the will of Charles Goodyear, deceased, as executors, is made a party complainant; that the original patent is invalid; that all the reissues are void, even if the original patent were valid, because the claims are broader than the claim in the original patent; and that they are not, nor is either of them, in fact, for the same invention as that for which the original patent was granted; and that the extension of the patent in June, 1858, by the Commissioner of Patents, was procured "by fraud and collusion, by fraudulent suppressions and concealments from, and by false and fraudulent representations to," that officer. The answer also claims that the defendants are not infringers, because they have manufactured their goods under a license from the original patentee to E. M. Chaffee,

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dated June 25th, 1848, which they insist is valid and outstanding, and a complete defense to this suit.

A large mass of testimony was taken by the parties. The record covers nearly one thousand two hundred printed pages. The court decreed in favor of the complainants. The defendants have brought the case here for review.

It has been argued in this court on both sides with great learning and ability. The propositions to which our attention has been called as grounds for the reversal of the decree are not numerous, and the scope of our remarks will not be extended beyond them.

Charles Goodyear, deceased, by his will appointed his son, Charles Goodyear, Jr., his wife, Fanny Goodyear, and James A. Dorr, his executors. The will provided that a majority of the executors should decide all questions that might arise; that the acts of a majority should be as binding as the acts of all; that if at any time there should be but two, they might appoint a third; and that if there should be but one, he might appoint another. The manner of appointment in both cases was specified.

It is insisted that Charles Goodyear, Jr., alone, as executor, cannot maintain this suit, and that his co-executors named in the will are necessary parties. The evidence in the record shows that the testator was domiciled, and had property in the city of New York. This gave the surrogate there jurisdiction to take the probate of the will, and to issue letters testamentary. Charles Goodyear, Jr., alone proved the will, and received such letters. The other persons named as co-executors have taken no step in that direction. They have never at any time assumed to do any act or claimed any right by virtue of their nomination in the will.

At the place where the letters testamentary were issued the common law relied upon by the appellants was in conflict with the statutory provisions of the State, and was, therefore, abrogated. It could no more be recognized in

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the Federal than in the State tribunals. Nor is the rule in courts of equity different from the rule in the courts of law. Neither can recognize the authority of an executor any more than that of administrator, and neither will aid him to obtain possession and control of the estate, until he has fulfilled the conditions and given the guarantees of fidelity and solvency prescribed by the local law. A different rule could hardly fail to be followed by the most mischievous consequences.

If, however, the question were to be settled by the rules of the common law, we should be of the opinion, upon the facts of the case as disclosed in the record, that the suit was well brought by Charles Goodyear, Jr., alone. But there are other considerations bearing upon the subject which are still more satisfactory to our minds.

The patent law of the United States authorizes an executor to surrender a patent and take a reissue. Act of July 4, 1836, sec. 13. In this case the patent was surrendered by Charles Goodyear, Jr., as executor, and the reissues were to him in the same character. This was a specific grant by the government, and vested in him exclusively the legal title. The suffix of "*executor*" signified the trustee character in which he assumed to act, and in which he was recognized and dealt with by the Commissioner. The designation, and the trust which it implied, did not prevent the passage of the legal title nor qualify the estate which accompanied it. It follows from this view of the subject that the grantee can sustain a suit on the patent in all respects, as if he had been designated in it as *trustee* instead of *executor*.

But conceding, for the purposes of the argument, that he occupies the same relation to the patents reissued to him as to the one reissued to the testator, and which he surrendered, then he was a foreign executor in the forum where the suit was instituted.

The bill alleges that he was the executor of Charles Good-

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year, deceased, his rights as such in that forum depended upon the local law of Rhode Island. If his authority to sue there in his representative character was intended to be questioned, it should have been done by plea or by the answer. Not having been done in that way, the defendants are concluded, and the question is no longer open in the case. The answer is silent upon this point. Its averments touching the jurisdiction of the surrogate of the city of New York are effectually disposed of by the complainants' proofs.

In any view which can be taken of the subject the objection is untenable.

The proposition that the patent is fatally defective, because it is impossible to make merchantable goods according to the directions contained in the specifications, cannot be entertained. The answer contains no averment upon the subject. No such issue was tendered to the complainants, and they have had no notice that such a defense was intended to be relied upon. In equity, the proofs and allegations must correspond. The examination of the case, by the court, is confined to the issues made by the pleadings. Proofs without the requisite allegations are as unavailing as such allegations would be without the proofs requisite to support them. *Foster v. Goddard*, 1 Black, 518; *Tripp v. Vincent*, 3 Barb. Ch. 613; *Boone v. Chiles*, 10 Pet. 178; *Harrison v. Nixon*, 9 Pet. 483.

It is alleged in the answer that the testator was not the original and first inventor of the process described in his patents.

The original patent was issued in 1844. The invention has since been covered by a succession of patents, the last of which, the reissues in question, are still unexpired, and are the foundation of this litigation. The discovery was one of very great value. It is a mine of wealth to the possessors. Since the first patent was issued there have been numerous cases of litigation involving its validity. They

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were earnestly contested. In every instance the patent was sustained. This litigation was remarked upon by the counsel for the appellants, and it was added that this question is now, for the first time, presented to this court for consideration. It is a just commentary to say that such a litigation is always to be expected in cases like this. There are always those who are ready to gather where they have not sown. The number and ardor of the conflicts is usually in proportion to the value of the prize at stake. The validity of the claim of the testator was never shaken by any adjudication. It has been uniformly affirmed and sustained. If the subject was never brought here before, it was, doubtless, because those who were defeated elsewhere saw no ground for the hope of a more favorable result in this court. These considerations are very persuasive to the presumption that the claim of Charles Goodyear, the elder, that he was the original and first inventor, is impregnable. If it were not so, we cannot doubt that it would have been overthrown in the numerous and severe assaults which have been made upon it. We have, however, examined the question by the light of the evidence found in the record, and in the absence of the adjudications referred to should have had no difficulty in coming to the same conclusion. We entertain no doubt upon the subject. The point was not very earnestly pressed upon our attention in the argument at the bar. We deem what we have said in regard to it, sufficient.

The patents reissued to the executor upon the surrender of the patent reissued to the testator were numbered respectively 1,084 and 1,085. The one numbered 1,085 is for the process by which vulcanized india-rubber is manufactured. The other one is for the result of the process in the form of the article produced

It is contended by the appellants that both these patents are invalid, for two reasons: 1, because they are broader than the claims of the patent surrendered by the executor;

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and, 2, because one is for a process, and the other for the product of that process. The court below held the objection to the patent for the process—that it is too broad—fatal to its validity, because the claim embraced “other vulcanizable gums” besides india-rubber as articles to which the process was to be applied. From this part of the decree below no appeal was taken by the complainants. It is, therefore, final and conclusive in its effect, and the patent to which it relates must be laid out of view. It remains, therefore, to consider only the patent No. 1,084, which is for the product.

The claims of the patent reissued to Charles Goodyear, deceased, in 1849, are as follows :

“What I claim as my invention and desire to secure by letters patent is the curing of caoutchouc, or india-rubber, by subjecting it to the action of a high degree of artificial heat, substantially as herein described, and for the purposes specified.

“And I also claim the preparing and curing the compound of india-rubber, sulphur, and a carbonate or other salt, or oxide of lead, by subjecting the same to the action of artificial heat, substantially as herein described.”

The claim of the patent for the product is thus expressed :

“What is claimed as the invention of Charles Goodyear, deceased, is the new manufacture of vulcanized india-rubber (whether with or without other ingredients), chemically altered by the application of heat, substantially as described.”

The specification, among other things, contains these clauses :

“For many purposes the manufacture is improved by the addition of other substances than sulphur, among which white lead is one of the best, and which, when used, may be combined in the mixture above described, in the proportion of seven parts by weight, thereby forming a triple compound. Other salts of lead may be used with advantage,

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and coloring matter may be also incorporated with the mixture for the purpose of imparting colors to the product.

“And other materials, such as cotton, silk, wool, or leather, may be incorporated or combined with the india-rubber and sulphur, thereby modifying the strength, elasticity, or other qualities of the new manufacture for particular purposes; as it is found that the new substance or product will be produced whenever the essential elements of rubber, sulphur and heat are used, whether such other materials are incorporated or not.”

A patent should be construed in a liberal spirit, to sustain the just claims of the inventor. This principle is not to be carried so far as to exclude what is in it, or to interpolate anything which it does not contain. But liberality, rather than strictness, should prevail where the fate of the patent is involved, and the question to be decided is whether the inventor shall hold or lose the fruits of his genius and his labors. *Corning v. Burden*, 15 How. 269 [6 Am. & Eng. 69]; *Battin v. Taggart*, 17 How. 74 [6 Am. & Eng. 242]. The surrender was made by the executor, for the reason that the specification was defective and required amendment. This the law permitted if the facts brought the case within the provisions of the statute. The Commissioner was charged with the duty of examining the facts and deciding upon the application. His judgment is shown in the results. Upon comparing the context of the specifications of the surrendered and of the reissued patent, and giving to each a reasonable interpretation, we are satisfied that the decision was correct, and we see no reason to reverse it.

It is the right of the patentee and his representatives to enlarge or restrict the claim, so as to give it validity and secure the invention. *Battin v. Taggart*, 17 How. 84 [6 Am. & Eng. 242].

Patentable subjects, as defined by the patent law (Act of 1836, sec. 6, are “any new and useful art, machine, man-

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ufacture or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter."

A machine may be new, and the product or manufacture proceeding from it may be old. In that case the former would be patentable and the latter not. The machine may be substantially old and the product new. In that event the latter, and not the former, would be patentable; both may be new, or both may be old. In the former case, both would be patentable; in the latter, neither.

The same remarks apply to processes and their results. Patentability may exist as to either, neither, or both, according to the fact of novelty, or the opposite. The patentability, or the issuing of a patent as to one, in nowise affects the rights of the inventor or discoverer in respect to the other. They are wholly disconnected and independent facts. Such is the sound and necessary construction of the statute.

This objection to the patent, we think, is also not well taken.

Can we go behind the action of the commissioner in extending the patent and inquire into the frauds by which it is alleged that the extension was procured?

The 5th section of the Act 1790 (1 Stat. at L., 109, chap. 7), provided for the repeal of patents under the circumstances and in the manner specified. This act was repealed by the Act of 1793. 1 Stat. at L., 318, chap. 2. The 10th section of that act re-enacted the 5th section of the Act of 1790. The 5th section of the latter act authorized substantially the same defenses in suits upon patents which are allowed by the 15th section of the Act of 1836, with the further provision, that if the facts touching either defense were established, "judgment shall be rendered for the defendant with cost, and the patent shall be declared void." This act continued in force until it was repealed by the act

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of 1836. These provisions were not then, and they have not since been re-enacted.

The 16th section of the Act of 1836 authorizes a court of equity, in cases of interference, to take jurisdiction and annul the patent issued to the party in the wrong. Beyond this the patent laws are silent upon the subject of the exercise of such authority.

This review furnishes a strong implication that it was the intention of Congress not to allow a patent to be abrogated in any collateral proceeding, except in the particular instance mentioned, but to leave the remedy in all other cases to be regulated by the principles of general jurisprudence. To those principles we must look for the solution of the question before us.

The subject was examined by Chancellor Kent with his accustomed fullness of research and ability, in *Jackson v. Lawton*, 10 Johns. 23. He there said: "Unless letters patent are absolutely void on the face of them, or the issuing of them was without authority, or was prohibited by statute, they can only be avoided in a regular course of pleading, in which the fraud, irregularity, or mistake is regularly put in issue. The principle has been frequently admitted, that the fraud must appear on the face of the patent to render it void in a court of law, and that when the fraud or other defect arises on circumstances, *dehors* the grant, the grant is voidable only by suit. 1 Hen. & Munf. 19, 187; (*Alexander v. Greenup*), 1 Munf. 134. The regular tribunal is chancery, founded on a proceeding by *scire facias* or by bill or information." The patent in that case was for land, but, as regards the point here under consideration, there is no distinction between such a patent and one for an invention or discovery. If there be, the case is stronger as to the latter. In the case of *Field v. Seabury*, 19 How. 332, the patent was also for land. This court ruled the point in like manner, and the same remarks apply. Viewing the subject in the light of the principle involved, we can

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see no defect in the parallelism between that case and the one before us.

The extension was granted by the commissioner pursuant to the 1st section of the Act of 1848, and the 18th section of the Act of 1836. The latter declares that upon the making and recording of the certificate of extension "the said patent shall have the same effect in law as though it had been originally granted for the term of twenty-one years." The law made it the duty of the commissioner to examine and decide. He had full jurisdiction. The function he performed was judicial in its character. No provision is made for appeal or review. *Foley v. Harrison*, 15 How. 448. His decision must be held conclusive until the patent is impeached in a proceeding had directly for that purpose according to the rules which define the remedy, as shown by the precedents and authorities upon the subject. We are not, therefore, at liberty to enter upon the examination of the evidences of fraud to which we have been invited by the counsel for the appellants. The door to that inquiry in this case is closed upon us by the hand of the law.

The rule which we have thus laid down is intended to be limited to the class of cases to which, as respects the point in question, the one before us belongs. We decide nothing beyond this.

The proof of infringement makes a case so clear for the appellees, in our judgment, that it is deemed unnecessary to extend this opinion by discussing the subject.

It is unnecessary to consider the respective rights of the several corporation complainants in this litigation, because it is clear that such as do not belong to them are vested in Charles Goodyear, the executor, by virtue of his holding the entire legal title of the patent.

The appellants meet the case in the aspect of infringement, by setting up a license from Charles Goodyear, deceased, to E. M. Chaffee, bearing date on the 25th of June, 1846, which they insist is a complete bar to the relief sought

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by the bill. This instrument gives to Chaffee, "his executors, administrators and assigns, a free license to use the said Goodyear's gum elastic composition for coating cloth for the purpose of japanning, marbling, and variegate japanning, at his own establishment, but not to be disposed of to others for that purpose without the consent of the said Charles Goodyear; * * * the right and license hereby conferred being limited to the United States, and not extending to any foreign country, and not being intended to convey any right to make any contract with the Government of the United States."

There are several objections to the view taken of this license by the counsel for the appellant. It authorizes Chaffee to use it himself. It gave him no right to authorize others to use it in conjunction with himself, or otherwise, without the consent of Goodyear, which is not shown, and not to be presumed. It was to be used at his own establishment, and not at one occupied by himself and others. Looking at the terms of the instrument, and the testimony in the record, we are satisfied that its true meaning and purpose were to authorize the licensee to make and sell india-rubber cloth, to be used in the place, and for the purposes, of patent or japanned leather. In our judgment it conveyed authority to this extent and nothing more. The practical construction which the parties themselves have given to a contract by their own conduct is, in cases of doubt, always entitled to great weight. That this practical construction, in the case before us, was in accordance with that which we have given to the instrument, is clearly shown by the following facts: The defendants, Chaffee, Bourne and Brown, were hostile to the extension, and collected evidence to defeat it. If they had understood the license then, as they construe it now, their interest would have prompted an opposite line of conduct. In 1856, Goodyear, the elder, and others, sued Brown, Bourne and Chaffee for an infringement of the patent reissued to Good-

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year—by manufacturing india-rubber shoes. In September of that year, they filed their answer. The license as they now construe it, would have been conclusive against the complainants. The answer is long and elaborate. It makes no allusion to the license. An absolute injunction was decreed. The Chaffee license bears date in 1846. In 1858, the same defendants procured a license to manufacture rubber shoes from Haywood. The terms were stringent and onerous. This license would have been useless, if their present construction of the license to Chaffee is correct. It is not clear that any interest was conveyed by Chaffee to the other parties, if ever, until since the commencement of this suit. The claim was not heard of before the conflict began. The license sets forth, in express terms, that it was not intended to give any authority to contract with the United States. All the articles to which this controversy relates were manufactured for the United States, under contracts with the Quartermaster-General. This defense cannot avail the defendants.

Upon looking further into the record we find that the complainants took seven exceptions, and the defendants twenty-eight, to the master's report in the court below, all of which, on both sides, were overruled. The complainants not having appealed, their exceptions are not open to examination. Our attention, therefore, will be confined to those taken by the defendants, who have brought them before us by this appeal. Many of them relate to the findings of the master upon questions of fact. Others are predicated of facts which, upon examination, are not found to be as the exceptions assume. In all these cases we are satisfied with the master's conclusions, and do not propose to review them. We shall dispose of such other points arising upon the report as we deem it proper to remark upon, without adverting particularly to the exceptions by which they are raised.

In taking the account the master was not limited to the

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date of the decree. In such cases, it is proper to extend the account down to the time of the hearing before him, unless the infringement ceased prior to that time. The rights of the parties are settled by the decree, and nothing remains but to ascertain the damages and adjudge their payment. The practice saves a multiplicity of suits, time, and expense, and promotes the ends of justice. We see no well founded objection to it.

The 13th section of the Act of March 2d, 1861, requires "that every article made or sold under the protection of a patent shall have fixed upon it the word 'patented,' and the day and year when the patent was granted; and when, from the character of the article, that may be impracticable, a label on which a notice to the same effect is printed shall be attached;" and if this be not done it is declared "that in case of suit for infringement, brought by the person failing so to mark the articles, no damages shall be recovered by the plaintiff except on proof that the defendant was duly notified of the infringement, and continued, after such notice, to make and vend the articles patented," &c. It is said that the bill contains no averment on this subject, and that the record is equally barren of proof that any such notice was ever given to the defendants, except by the service of process, upon the filing of the bill. Hence, it is insisted, that the master should have commenced his account at that time, instead of the earlier period of the beginning of the infringement. His refusal to do so was made the subject of an exception. The answer of the defendants is as silent upon the subject as the bill of the complainants. No such issue was made by the pleadings. It was too late for the defendants to raise the point before the master. They were concluded by their previous silence, and must be held to have waived it. It cannot be considered here. We refer to the authorities cited in an earlier part of this opinion, in support of the rule upon this subject.

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The Circuit Court decreed that the Providence Company was liable "for all the profits made in violation of the rights of the complainants, under the patent aforesaid, by respondents, by the manufacture, use, or sale of any of the articles named in said bill." This was in accordance with the rule in equity cases established by this court. *Livingston v. Woodworth*, 15 How. 546 [6 Am. & Eng. 167]; *Dean v. Mason*, 20 How. 198 [6 Am. & Eng. 361]. It was not objected to in the argument here, but it was strenuously insisted that the master had erred in his application of the rule, and the court in confirming his conclusions. We have examined the report and are satisfied that he discharged his duty with exemplary care and diligence. The report is characterized by unusual ability. He has stated two accounts, one against the Providence Company and the other against the Columbian Company, which he finds to be the Providence Company under another name.

The Providence Company manufactured articles covered and articles not covered by the patent in question. No separate account was kept as to their respective cost and profit. The business as to both was so intermingled and confused that approximate results only were possible, and these were attainable by but one process. He applied the principle of apportionment as follows :

The gross amount of sales of articles of both classes was \$2,648,131.49. The gross amount of sales of articles covered by the patent, \$1,899,696.78. Gross amount of profits, \$349,520.02. Proportion of profits due to articles covered by the patent \$250,757.72. The master reports that this result approaches exactness, and that it is favorable to the defendants. The Columbian Company manufactured only patented articles. Its books were properly kept. The *data* were clear and certain, and he had no difficulty in reaching a satisfactory conclusion. He found the amount of profits to be \$60,000.

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Profits of the Providence Company, . . .	\$250,759 72
Profits of the Columbian Company, . . .	60,000 00
<hr/>	
Total for which the defendants are liable, .	\$310,757 72

In making up the account the master allowed deductions from profits, for bad debts, for rents, and interests paid—debiting rents and interest received; he allowed for the market value of the materials on hand when the infringement began, for the cost of those acquired afterwards to carry on the business, and for the usual salaries of the managing officers. In this connection we take the following paragraph from the report:

“Large amounts appear by the books to have been expended in repairs of building and machinery, and in the purchase of new machinery, tools and fixtures. No further allowance is made by the master for wear and tear, and depreciation.”

He refused to allow the extraordinary salaries which it appeared by the books had been paid, being satisfied they were dividends of profit under another name, and put in that guise for concealment and delusion. The allowance for repairs and other items mentioned in this connection doubtless exceeded the wear and tear which could have occurred during the time of the infringement. He refused to allow the value, at the time they were used, of materials bought for the purposes of the infringement. The market was a rising one. The defendants had the benefit of it as to those which were untainted by dishonesty. Those bought later stand upon a different footing. The claim is entitled to no especial favor. There must be a fixed rule. There can be none better than the cost as to those to which that principle was applied. The articles might have fallen in value instead of rising. The defendants cannot complain, as they are held liable only for the ultimate profits of the piracy.

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He refused to allow the profits due to elements not patented, which entered into the composition of the patented articles. There may be cases in which such an allowance would be proper. This is not one of them. The manner in which the books of the Providence Company were kept renders such an account impossible as to the business done in their name.

The conduct of the defendants in this respect has not been such as to commend them to the favor of a court of equity. Under the circumstances, every doubt and difficulty should be resolved against them. *Lupton v. White*, 15 Vesey, 432; *Copeland v. Crane*, 9 Pick. 79; *Dexter v. Arnold*, 2 Sumn. 109; *Miller v. Whittier*, 36 Maine, 585. The allowance was properly denied.

He refused to allow manufacturer's profits and interest on the capital stock. This was correct. "The profits made in violation of the rights of the complainants" in this class of cases, within the meaning of the law, are to be computed and ascertained by finding the difference between cost and yield. In estimating the cost, the elements of price of materials, interest, expenses of manufacture and sale, and other necessary expenditures, if there be any, and bad debts, are to be taken into the account, and usually nothing else. The calculation is to be made as a manufacturer calculates the profits of his business. "Profits" is the gain made upon any business or investment, when both the receipts and payments are taken into the account. *People v. Super. Niag.*, 4 Hill. 23. The rule is founded in reason and justice. It compensates one party and punishes the other. It makes the wrong doer liable for actual, not possible, gains. The controlling consideration is, that he shall not profit by his wrong. A more favorable rule would offer a premium to dishonesty, and invite to aggression.

The jurisdiction of equity is adequate to give the proper remedy, whatever phase the case may assume; and the

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severity of the decree may be increased or mitigated according to the complexion of the conduct of the offender.

We find no error in the record, and the decree of the Circuit Court is affirmed (a).

(a) Wallace adds: "Note—Bradley and Strong, JJ., had not taken their seats upon the bench when the preceding case was argued and decided." 9 Wall. 804.

Notes:

7. Patents should be liberally construed:

Hogg v. Emerson, 6 How. 437 [5 Am. & Eng. 1].
Corning v. Burden, 15 How. 252 [6 Am. & Eng. 169].
Turrill v. Railroad Co., 1 Wall. 491 [7 Am. & Eng. 202].
Klein v. Russell, 19 Wall. 433.
Corn Planter Patent, 23 Wall. 181.
Merrill v. Yeomans, 94 U. S. 568.

8. Process reissued for product:

Powder Co. v. Powder Works, 98 U. S. 126.
Cochrane v. Anilin Fabrik, 111 U. S. 293.

Patentee is entitled to reissue in order to secure his invention:

Collar Co. v. Van Dusen, 23 Wall. 530.
Merrill v. Yeomans, 94 U. S. 568.
Bridge Co. v. Iron Co., 95 U. S. 274.

9. Patentability of a process:

O'Reilly v. Morse, 15 How. 62 [5 Am. & Eng. 483].
Corning v. Burden, 15 How. 252 [6 Am. & Eng. 69].
Mowry v. Whitney, 14 Wall. 434. [p. 506 post].
Mitchell v. Tilghman, 19 Wall. 287.

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Wood Paper Patent, 23 Wall. 566.
Cochrane v. Deener, 94 U. S. 781.
Downton v. Yaeger Milling Co., 108 U. S. 466.
New Process Fermentation Co. v. Maus, 122 U. S. 413.
Lawther v. Hamilton, 124 U. S. 1.
Telephone Cases, 126 U. S. 1.

When not:

Brown v. Piper, 91 U. S. 37.
Western Electric Co. v. Ansonia Brass Co., 114 U. S. 447.
Miller v. Foree, 116 U. S. 22.
Dreyfus v. Searle, 124 U. S. 60.
Mosler Safe, &c. Co. v. Mosler, Bahmann & Co., 127 U. S.
354.

Patentability of product:

Wood Paper Patent, 23 Wall. 566
Smith v. Goodyear D. V. Co., 93 U. S. 486.
Merrill v. Yeomans, 94 U. S. 568.
Cochrane v. Anilin Fabrik, 111 U. S. 293.

10. Repeal of patent for fraud:

Statutes—Act 1790, sec. 5; Act 1793, sec. 10; Act 1836,
sec. 16.

Patent cannot be collaterally impeached for fraud in proceed-
ings for infringement:

Notes and Citations.

Agawam Co. v. Jordan, 7 Wall. 583. [p. 24 *ante*.]
Eureka Co. v. Bailey Co., 11 Wall. 488. [p. 280 *post*.]
Seymour v. Osborne, 11 Wall. 516. [p. 290 *post*.]
Railroad Co. v. Dubois, 12 Wall. 47. [p. 433 *post*.]

11. Personal license:

Troy Iron & Nail Factory v. Corning, 14 How. 193 [5
Am. & Eng. 375].
Oliver v. Chemical Works, 109 U. S. 75.
Hapgood v. Hewitt, 119 U. S. 226.

15. Master's report, and practice on reference to—

Livingston v. Woodworth, 15 How. 546 [6 Am. & Eng.
167].
Kinsman v. Parkhurst, 18 How. 289 [6 Am. & Eng. 273].
Silsby v. Foote, 20 How. 378 [6 Am. & Eng. 392].
Mowry v. Whitney, 14 Wall. 620 [9 Am. & Eng. 1].
Thomson v. Wooster, 114 U. S. 104.
Tilghman v. Proctor, 125 U. S. 126.

16. Allowable expenses:

Mowry v. Whitney, 14 Wall. 620 [9 Am. & Eng. 1].
Tremolo Patent, 23 Wall. 518.
Gould v. Cowing, 105 U. S. 253.
Tilghman v. Proctor, 125 U. S. 136.

Notes and Citations.

Patent in Suit:

No. 3,633, Goodyear, C. June 15, 1844. Reissue Nos. 156
& 157, December 25, 1849. Reissue No. 1,085, No-
vember 20, 1860. India-Rubber Process (Soft).

No. 1,084, November 20, 1860. India-Rubber Product.

OTHER SUITS ON SAME PATENT :

- Goodyear *v.* Day, 1850. 1 Blatch. 565; Fish. Pat. Rep. 385.
Day *v.* Newark India-Rubber Mnfg. Co., 1850. 1 Blatch. 628;
Fish. Pat. Rep. 394.
Goodyear *v.* Day, 1852. 2 Wall., 283.
Goodyear *v.* McBurney, 1853. 3 Blatch. 32.
Goodyear *v.* New Jersey Central R. R. Co., 1853. 2 Wall., Jr. 356;
1 Fish. 626.
Goodyear *v.* Phelps, 1853. 3 Blatch. 91.
Goodyear *v.* O'Bourn, 1855. 3 Blatch. 266.
Goodyear *v.* Chaffee, 1855. 3 Blatch. 268.
Goodyear *v.* Congress Rubber Co., 1856. 3 Blatch. 449.
Day *v.* Cary, 1859. 4 Blatch. 271; 1 Fish. 424.
Goodyear *v.* Beverly Rubber Co., 1859. 1 Cliff. 348.
Goodyear *v.* Dunbar, 1859. 3 Wall., Jr., 310; 1 Fish. 472.
Goodyear *v.* Bishop, 1860. 4 Blatch. 438; 2 Fish. 96.
Goodyear *v.* Bishop, 1861. 2 Fish. 154.
Metropolitan Washing Machine Co. *v.* Earle, 1861. 3 Wall., Jr.,
320; 2 Fish. 203.
Goodyear *v.* New York Gutta Percha Co., 1862. 2 Fish. 312.
Goodyear *v.* Providence Rubber Co., 1864. 3 Cliff. 351.
Goodyear *v.* Hills, 1866. 3 Fish. 134.
Goodyear *v.* Hullihen, 1867. 2 Hughes, 492; 3 Fish. 251.
Goodyear *v.* Mullee, 1868. 3 Fish. 420.
Rubber Co. *v.* Goodyear, 1868. 6 Wall. 153 [7 Am. & Eng. 475.]
Providence Rubber Co. *v.* Goodyear, 1870. 9 Wall. 805 [p. 194 *post*].
Providence Rubber Co. *v.* Goodyear, 1870. 9 Wall. 807 [p. 200 *post*].

Notes and Citations.

Robinson, *Ex parte*, 1870. 2 Biss. 309; 4 Fish. 186.

Gardner v. Goodyear Dental Vulcanite Co., 1873. 1 Blatch. 628;
3 O. G. 295.

Cited:

IN SUPREME COURT IN :

Eureka Co. v. Bailey Washing Machine Co., 1871. 11 Wall. 488 ;
Bk. 20, L. ed. 209. [p. 280 *post*].

Seymour v. Osborne, 1871. 11 Wall. 516 ; Bk. 20, L. ed. 33.
[p. 290 *post*].

Railroad Co. v. Dubois, 1871. 12 Wall. 47 ; Bk. 20, L. ed. 265.
[p. 433 *post*].

Sewall v. Jones (Dis. Opin.), 1875. 91 U. S. 171 ; Bk. 23, L. ed. 275.

Elizabeth v. American Nicholson Pavement Co., 1878. 97 U. S.
126 ; Bk. 24, L. ed. 1000.

Hartell v. Tilghman, 1879. 99 U. S. 547 ; Bk. 25, L. ed. 357.

Ricker v. Powell, 1879. 100 U. S. 104 ; Bk. 25, L. ed. 527.

Nashville, &c. R. R. Co. v. United States, 1879. 101 U. S. 639 ;
Bk. 25, L. ed. 1074.

Barton v. Barbour, 1881. 104 U. S. 126 ; Bk. 26, L. ed. 676.

Root v. Lake Shore & M. S. R. R. Co., 1882. 105 U. S. 189 ; Bk.
26, L. ed. 975.

Tilghman v. Proctor, 1888. 125 U. S. 136.

IN CIRCUIT COURTS IN:

American Wood Paper Co. v. Glen Falls Paper Co., June, 1870.
8 Blatch. 513 ; 4 Fish. 324.

Whitney v. Mowry, August, 1870. 4 Fish. 207.

Parham v. American Buttonhole, Overseaming and Sewing Ma-
chine Co., April, 1871 ; 4 Fish. 468.

Tilghman v. Mitchell, August, 1871. 9 Blatch. 18 ; 4 Fish. 615.

Moorman v. Hoge, October, 1871 ; 2 Sawy. 78.

Notes and Citations.

- Carew v. Boston Elastic Fabric Co.*, October, 1871. 3 Cliff. 356 ; 5 Fish. 90.
- Gear v. Grosvenor*, March, 1873. 1 Holmes 215 ; 6 Fish. 314.
- Jones v. Sewall*, April, 1873. 3 Cliff. 563 ; 6 Fish. 343.
- Dorsey Harvester Rake Co. v. Marsh*, April, 1873. 6 Fish. 387 ; 9 Phila. Rep. 395.
- Birdsall v. McDonald*, April, 1874. 1 Ban. & Ard. 165.
- Putnam v. Sudhoff*, April, 1874. 1 Ban. & Ard. 198.
- American Nicholson Pavement Co. v. City of Elizabeth*, September, 1874. 1 Ban. & Ard. 439.
- American Nicholson Pavement Co. v. City of Elizabeth*, October, 1874. 1 Ban. & Ard. 463.
- Milligan & Higgins Glue Co. v. Upton*, October, 1874. 4 Cliff. 237 ; 1 Ban. & Ard. 497.
- Miller & Peters Mnfg. Co. v. DuBrul*, May, 1877. 2 Ban. & Ard. 618.
- Adams v. Joliet Mnfg. Co.*, June, 1877. 3 Ban. & Ard. 1.
- Wonson v. Peterson*, March, 1878. 3 Ban. & Ard. 249.
- Weaver v. Alter*, April, 1878. 3 Woods 152.
- Donohoe v. Mariposa Land Co.*, May, 1878. 5 Sawy. 163.
- Jennings v. Pierce*, July, 1878. 15 Blatch. 42 ; 3 Ban. & Ard. 361.
- Herring v. Gage*, August, 1878 ; 15 Blatch. 124 ; 3 Ban. & Ard. 396.
- Thomas v. Shoe Machinery Mnfg. Co.*, October, 1878. 3 Ban. & Ard. 557.
- Brady v. Atlantic Works*, October, 1878. 3 Ban. & Ard. 577.
- Tucker v. Burditt*, October, 1879. 4 Ban. & Ard. 569.
- Hoe v. Cottrell*, March, 1880. 17 Blatch. 546 ; 5 Ban. & Ard. 256.
- Burdett v. Estey*, April, 1880. 19 Blatch. 1 ; 5 Ban. & Ard. 308 ; 3 Fed. Rep. 566 ; 10 Reporter, 519.
- Atwood v. Portland Co.*, July, 1880. 10 Fed. Rep. 283 ; 5 Ban. & Ard. 533.
- American Law Co. v. Emerson*, December, 1880. 8 Fed. Rep. 806.
- McKay v. Dibert*, January, 1881. 5 Fed. Rep. 587 ; 19 O. G. 1351 ; 11 Reporter, 386.
- Smith v. Merriam*, January, 1881. 6 Fed. Rep. 713.
- Tucker v. Dana*, January, 1881. 7 Fed. Rep. 213.
- Putnam v. Hollander*, February, 1881. 19 Blatch. 48 ; 6 Fed. Rep. 882.

Notes and Citations.

Lilienthal v. Washburn, 1881. 4 Woods, 65; 8 Fed. Rep. 707.

National Mnfg Co. v. Meyers, May, 1881. 7 Fed. Rep. 355.

Combined Patents Can Co. v. Lloyd, January, 1882. 11 Fed. Rep. 149.

Boyd v. Cherry, January, 1883. 4 McCrary, 70.

Hartshorn v. Eagle Shade Roller Co., October, 1883. 18 Fed. Rep. 90.

Gibbs v. Hoefner, February, 1884. 22 Blatch. 36; 19 Fed. Rep. 323.

Hancock Inspirator Co. v. Jenks, February, 1884. 21 Fed. Rep. 911.

Shaw Relief Valve Co. v. City of New Bedford, March, 1884. 19 Fed. Rep. 753.

New Process Fermentation Co. v. Maus, June, 1884. 20 Fed. Rep. 725.

Allen v. Deacon, July, 1884. 10 Sawy. 210; 21 Fed. Rep. 122.

Sessions v. Romadka, July, 1884. 21 Fed. Rep. 124.

Odell v. Stout, October, 1884. 22 Fed. Rep. 159.

Railway Register Mnfg Co. v. Hudson, February, 1885. 23 Fed. Rep. 593.

Excelsior Needle Co. v. Union Needle Co., February, 1885. 23 Blatch. 147; 32 Fed. Rep. 221.

Meyers v. Callaghan, July, 1885. 24 Fed. Rep. 636.

In re Day, May, 1886. 27 Fed. Rep. 678.

Holliday v. Pickhardt, January, 1887. 29 Fed. Rep. 853.

Rogers v. Reissner, April, 1887. 39 O. G. 832.

United States v. American Bell Tel. Co., September, 1887. 32 Fed. Rep. 591.

Shannon v. Bruner, February, 1888. 33 Fed. Rep. 871.

Creamer v. Bowers, May, 1888. 35 Fed. Rep. 207.

Moss v. Knapp, June, 1888. 35 Fed. Rep. 218.

Notes and Citations.

IN STATE COURTS IN :

Freeman v. Freeman, June, 1886. 2 New England Rep. 520.

IN COMMISSIONER'S DECISIONS IN:

Herr, October, 1887. 41 O. G, 463.

IN TEXT-BOOKS IN:

2 Abb. Pat. Law, 1886, pp. 93, 111, 349.

Curtis on Pats., 4th ed., §§ 14 a, 218 a, 282 b, 436 a.

Merwin on Pat. Inv't., 1883, p. 79.

Walker on Pats., 1883, pp. 78, 126, 132, 155, 160, 174, 176, 179, 192, 224, 225, 289, 290, 334, 418, 422, 485, 487, 489, 490, 492, 496.

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Argument of counsel.

THE PROVIDENCE RUBBER COMPANY, APPELLANT, v. CHARLES GOODYEAR, Executor of CHARLES GOODYEAR, Deceased, ET AL.*

9 Wall., 805-807. Dec. Term, 1869.

[Bk. 19, L. ed. 828; 2 Whit. 250.]

Argued April 26, 1870. Decided April 30, 1870.

Bill of review. Newly discovered evidence. Laches.

1. Where on motion made for leave to file a bill of review grounded on newly discovered matter, it appeared that such matter was sufficiently shown in the exhibits in the original case and that leave to file the bill would not effect the decree which had been rendered, *held* that appellants were estopped from denying knowledge of their contents, and that their laches of seven years was fatal to their application. (p. 197.)
2. Whether an application shall be granted or refused, rests in the sound discretion of the court, the requisite leave is never a matter of right. (p. 197.)

[Citations in opinion of the court:]

Goodyear v. Day, 2 Wall. Jr. 283. p. 196.

Goodyear and the New England Car Spring Company v. The Central Railroad of New Jersey, 1 Fish. 626. p. 196.

Story Eq. Pl. sec. 414, 417. p. 197.

Appeal from the Circuit Court of the United States for the District of Rhode Island.

On motion to stay mandate and file bill of review.

The case is sufficiently stated by the court.

See, also, the report of the decision by this court on the merits.

Messrs. Parsons, Payne, and Cushing, for appellants:

After the decision of the court in this suit affirming the decree of the Circuit Court for the District of Rhode Island, and near the close of the month of March of the

* See Explanation of Notes, page III.

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present year, the appellants were, for the first time, informed that Charles Goodyear, the original patentee, had, during his lifetime, conveyed to one William Judson an absolute interest amounting to about one-third in and to the patent in controversy, and that said interest was outstanding in the said Judson during the whole lifetime of the patent.

The effect of such a transfer would necessarily and obviously be that neither this suit nor any other based on the patent could be properly brought unless Judson or his estate were joined as a party complainant.

The appellants have a right to insist that Judson should be made a party to this bill for their own protection. Otherwise Judson, or his estate, not being concluded by a decree in this proceeding, will have the right, by virtue of his ownership of part of the patent, to sue again for the same infringement.

And the court, upon the fact being made to appear that there are in existence necessary parties, without whom the suit could not be maintained, have not only the right, but it becomes their duty to see that such parties are brought in. 1 Daniel's Ch. Pr. 285 and 286, notes and numerous cases cited.

Lewis v. Darling, 16 How. 8.

And a defeated party, upon the discovery of new evidence, may, after a final decree in this court, obtain leave to file a bill of review in the court below, to review the judgment which this court has rendered.

U. S. v. Knight's Admr. 1 Black. 489 ; U. S. v. Rocha, December 2, 1870.

Mr. W. E. Curtis, for appellees:

Mr. Justice SWAYNE stated the case and delivered the opinion of the court.

The appellants have submitted a motion that the man-

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date in this case be stayed, and that they have leave to file a bill of review. The ground of the application is the alleged fact that George B. Dorr and William Judson, both deceased, were largely interested in the patent which lies at the foundation of this litigation, and that their legal representatives should have been made parties to the suit. It is shown that a suit has been recently instituted by Louisa Judson, widow and executrix of William Judson, against the appellants for the same infringements of the patent which are charged in the bill in this case. Affidavits are on file—taken to show the interest of Judson—and that the appellants had no knowledge of the fact until since the determination of the case in this court. They are silent as to the interest of Dorr. Upon looking into the record, we find that the subpoena in this case bears date on the 30th of October, 1862. The litigation was in progress from that time until it was determined here by the opinion of this court delivered on the 7th of February last, affirming the decree of the Circuit Court in favor of the complainants.

Exhibit "B," annexed to the complainants' bill in the record, is the opinion of Mr. Justice Grier in the case of *Goodyear v. Day*, 2 Wall. Jr. 283, involving the same patent.

That opinion was delivered at the May Term, 1852, of the Circuit Court of the United States for the District of New Jersey. It appears by this opinion that the point was made in that case by the defendant, that William Judson and James A. Dorr were parties in interest, and should be made parties complainant. The assignment by Goodyear to Judson and Dorr was before the learned judge, and the question made was fully considered. They were not made parties. Exhibit "C," annexed to the bill, is the opinion of the same justice in the case of *Goodyear and the New England Car Spring Company v. The Central Railroad of New Jersey*, 1 Fish. 626, argued in the Circuit Court of

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that State on the 24th of March, 1853. The suit in that case was also founded upon the Goodyear patent. The objection that Judson and Dorr should have been co-complainants was set up. The assignment to them by Goodyear was analysed and considered. The learned judge arrived at the conclusion that they were not necessary parties, and overruled the point. These exhibits were as much a part of the bill in this case as anything which it contained. The appellants are estopped from denying knowledge of its contents. They were sufficient to show the existence of the assignment to Judson and Dorr, and the general scope and character of its contents. If not satisfied with the views of Mr. Justice Grier upon the subject, they should have made the defense by plea or answer. Not having spoken at the proper time in that way, they cannot be permitted to speak with effect now, in this way. They have slept upon knowledge which, if material, should have awakened them to activity more than seven years ago. Their laches is fatal to their application. It is a settled rule in this class of cases "that the matter must not only be new, but such as the party, by the use of reasonable diligence, could not have known; for if there be any laches or negligence in this respect, that destroys the title to the relief." Story, Eq. Pl., sec. 414. Whether such an application shall be granted or refused, rests in the sound discretion of the court. The requisite leave is never a matter of right. Story, Eq. Pl., sec. 417. The affidavits have failed to satisfy us that if a bill of review were filed the result would affect the decree which has been rendered.

We are all of the opinion that, under the circumstances, it would not be proper to withhold longer from the appellees the fruits of the relief to which we have found them entitled.

It is not probable that the appellants will be injured by any litigation which the representatives of Judson or Dorr may institute. If their interests, as claimed, shall be es-

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tablished, the Circuit Court which tries the case will, doubtless, so exercise its flexible jurisdiction in equity as to protect all rights and do justice to all concerned.

The motion for leave to file a bill of review is denied.

9 Wall. 807.

Patent in suit:

No. 3,633. Goodyear, C. June 15, 1844. Reissues Nos. 156 and 157, December 25, 1849. Reissue No. 1,085 November 20, 1860. India-Rubber Process. Reissue 1,084, November 20, 1860. Product.

OTHER SUITS ON SAME PATENT :

See list given in Rubber Co. v. Goodyear, 9 Wall. 788 (p. 188 *ante*).

IN TEXT BOOKS IN:

Walker on Pats., 1883, p. 445.

This image shows a single page of white paper with horizontal black ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. A small dark speck is located near the top center of the page. The paper appears to be part of a notebook or a set of loose-leaf paper.

Syllabus.

THE PROVIDENCE RUBBER COMPANY ET AL., APPELLANTS, v. CHARLES GOODYEAR'S EXECUTOR AND THE UNION INDIA RUBBER COMPANY ET AL.*

9 Wall., 807-811. Dec. Term, 1869.

[Bk. 19, L. ed. 587; 2 Whit. 252.]

Argued January 26, 1870. Decided February 14, 1870.

Bill to set off a judgment. Original bill. Cross-bill.

- 1 Where an interlocutory decree was rendered in favor of C. G. and others, and while the case was still before a master for an accounting for damages for infringement, a bill was filed by defendant thereto to set off a judgment against C. G. one of the complainants, and praying a discovery of the respective shares of the damages claimed by C. G. and others in order to set off the judgment against his share; *held* that it was an original bill and not a cross-bill, and that it could not be sustained as the latter, because when filed no decree had passed in the original suit for the payment of damages. (p. 206.)
2. *Held* that the bill being in no wise auxiliary to the original suit nor in continuation of that proceeding, the case was not one proper for substituted service. (p. 207.)

[Citations in opinion of the court:]

Mitford, Pl. 80, 81. p. 206.

Ayres v. Carver, 17 How. 591. p. 206.

Cross v. Del Valle, 1 Wall. 1. p. 206.

D'Arcy v. Ketcham, 11 How. 165. p. 207.

McVicker v. Beedy, 31 Maine, 314. p. 207.

Story, Conflict of Laws, sec. 314. p. 207.

Dunn v. Clarke, 8 Pet. 1. p. 207.

Appeal from the Circuit Court of the United States for the District of Rhode Island.

The history and facts of the case appear in the opinion of the court. See, also, the report of the case between these parties, of which this is a branch, as decided by this court (*ante*, 566).

* See Explanation of Notes, page III.

Argument of counsel.

Messrs. J. H. Parsons, Abraham Payne, C. Cushing, J. A. Garfield and W. W. Boyce, for appellants:

1. As to the motion to dismiss for want of jurisdiction.

We claim that the granting of this motion by the court below was erroneous.

The parties, the subject matter, all the essentials of jurisdiction were before the court. The bill was filed after the final hearing, it is true, and after the exceptions to the master's report had been argued, but before the entry of any final decree in the original suit.

Process was not served until after the final decree in the original suit, but the motion for substituted service was heard and granted in part, November 28, 1866, the day the court delivered its opinion in the original suit.

Goodyear, one of the defendants, voluntarily appeared without being served with process, and filed his demurrer February 1, 1867, his own solicitor also appearing.

As to the demurrer :

It is claimed that the cross-bill contains matters and allegations separate and distinct from and independent of the matters in litigation in the original suit.

We were sued by three different parties. The master reported that we were to pay a large sum. He refused to ascertain in the proportion due to each. We had a judgment against one of the parties, the existence of which was made known to the master. We desired that the proportions due to each should be ascertained, in order that we might claim the benefit of that judgment in reducing the amount ascertained to be due to one of the parties. That party appeared before the master and claimed that he was entitled to a large portion, if not the whole, of the damages. He appeared before the court making the same claim by elaborate petitions. Now, we submit that the setting up of the judgment in our cross-bill, was not only not introducing anything foreign, distinct and independent, but it was essential that we should set it up. It was setting up a perfectly proper, legitimate defense in the form of a cross-

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bill. The motions and petition of Goodyear show his distinct interest. They were part of the proceedings in the original suit, and if he has a claim by himself to a large portion if not the whole of these damages, we have a right to set up his diverse claim; our judgment; and the fact that his proportion is to be reduced by the amount of this judgment.

Messrs. William E. Curtis, J. H. Ackerman and E. W. Stoughton, for appellees:

1. A cross-bill is matter of defense. It cannot embrace new and distinct matter not embraced in the original suit; and if it does so, no decree can be founded on those matters, and the cross-bill is open for a demurrer for this cause.

Story, Eq. Pl., sec. 631; Galation v. Erwin, Hopk. 48; Galation v. Cunningham, 8 Cow. 361.

Nothing can be more entirely foreign to the original suit than the matter set up in the cross-bill respecting the alleged judgment against Charles Goodyear, deceased, and the accounting and relief prayed for in the cross-bill.

The settled rule of courts of equity in respect to a cross-bill like the one demurred to in this case, is stated by Judge Story, thus: "A cross-bill being, as has been already said, a matter of defense, is confined to the matters in litigation in the original suit and, therefore, if it seeks to bring before the court other distinct matters and rights, it is no longer entitled to be deemed a cross-bill, but is an original suit, without such a restriction, new matters might be introduced into litigation by cross-suits without end." Story, Eq. Pl., sec. 631.

A cross-bill is a mere auxiliary suit and a dependency of the original, and it must be confined to the matters in question in the bill. Cross v. Del Valle, 1 Wall. 5.

2. The cross-bill is filed for a discovery and an account when the subject is matter of set-off of a judgment, and where the plaintiff can have as effectual and complete a

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remedy in a court of law as in a court of equity, and it is clearly demurrable.

2 Dan. Ch. Pr. (ed. 1846), marg. p. 28; Dinwiddie v. Bailey, 6 Ves. 136; Story, Eq. Pl., sec. 482.

The proper way to set off one judgment against another, is by motion. Judgments, not only in the same court, but in different courts, may be set off against each other at law and the power of courts of law in allowing such set-offs does not depend upon statute, but on the general jurisdiction of the court over its suitors.

Barker v. Braham, 2 W. Bl. 869; Simpson v. Hart, 1 Johns. Ch. 94.

Courts of equity follow the law in matters of set-off, unless there is some equity attaching to the transaction between the parties.

3. It appears that the alleged judgment against defendant's testator was a proceeding by attachment of certain personal property found in the State of Rhode Island; that there was no service of process upon him, and that he never appeared or contested the suit.

It was a mere proceeding *in rem*, and not personally binding on the party as a judgment *in personam*. It affected the property attached to the extent thereof, but was in no sense a judgment binding the party beyond that property.

McVicker v. Beedy, 31 Me. 314; Story, Conf. L., sec. 549; 6 Am. Law Reg. (N. S.) 5, 8; D'Arcy v. Ketchum, 11 How. 165.

It follows that a bill—like the one in question, seeking to convert a proceeding or judgment *in rem* into a judgment *in personam*, or to establish a set-off of a judgment *in rem*—cannot be sustained. It would be attended with great injustice and confusion, and is without precedent.

4. Even if the alleged judgment against the defendant's testator was a judgment *in personam*, the complainants jointly owning it cannot offset it against this claim of

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Charles Goodyear's executor against the Providence Rubber Company, one of their number.

It is an elementary principle, that the debt sued for, and the debt intended to be set off, must be mutual and due in the same right.

1 Wheat. Selw., sec. 150 ; Jackson v. Robinson, 3 Mas. 138 ; Cobb v. Haydock, 4 Day, 472.

Joint debts cannot be set off against separate debts, or separate debts against joint debts, either at law or in equity, as where there is a separate debt due from a partner, and a joint debt due by a partnership. Howe v. Sheppard, 2 Sumn. 409 ; Palmer v. Green, 6 Conn. 19 ; Ladue v. Hart, 4 Wend. 583.

Mr. Justice SWAYNE (a) delivered the opinion of the court.

After the interlocutory decree was entered in the case of Charles Goodyear, executor of Charles Goodyear, deceased, and others, against The Providence Rubber Company and others, in the Circuit Court of the United States for the District of Rhode Island, and while the case was before the master to whom it had been referred, the complainants filed this bill. It alleges that they hold a judgment against the estate of Charles Goodyear, deceased, in favor of E. M. Chaffee & Co. for the sum of \$48,215.20, amounting, with interest thereon, to \$72,215.20, or thereabout, which they insist ought, in equity and good conscience, to be offset against such portion of the damages to be recovered in the suit first mentioned, as may be due and payable to Charles Goodyear, the executor. An exhibit is annexed to the bill and made a part of it, by which it appears that the judgment was recovered against Charles Goodyear, deceased, in his lifetime, by attachment ; that process was not served upon him ; that he did not appear ; that he made no defense ; that the cause of action was the alleged breach of a

9 Wall. 807-808.

(a) Wallace inserts "stated the case and."

Opinion of the court.

contract; and that the court assessed the damages for which the judgment was rendered.

It further appears by this exhibit that the firm of E. M. Chaffee & Co. consisted of Edwin M. Chaffee, George O'Bourne, and William W. Brown. The sheriff's return upon the writ of attachment is as follows:

“For want of the body of the within-named defendant to be by me found in my precinct, I have this day, at 11 o'clock A. M., made service of this writ by attaching two pieces grass cloth, one piece red fitting, six rolls cotton batting, one piece of perforated rubber cloth, one roll grass cloth, one roll sheeting covered with cotton batting, two bundles wadding, one piece bagging, set forth to me by the plaintiffs as the property of the defendant, and have left a true and attested copy of this writ, with my doings hereon, with Messrs. Bourne and Brown, in whose hands or possession I found said goods and chattels, the defendants having no last and usual place of abode within my precinct whereat to leave a copy.”

The bill further sets forth that the Union India-Rubber Company claims to be a corporation of the State of New York, having its principal place of business in the city of New York, and that the Phenix Rubber Company claims to be a corporation of the State of Connecticut, having its principal place of business also in the city of New York.

The prayer of the bill is, that the defendants set forth and discover what share of the damages to be recovered in the prior suit they respectively claim; that the judgment may be set off against that portion which shall belong to Charles Goodyear, as executor of Charles Goodyear, deceased; and for other and proper relief. There is a further prayer that service of process may be made upon the corporation defendants, by serving it upon their solicitor of record, and that service may be made upon Charles Goodyear, the executor, by some disinterested person in the State of New York. Substituted service was made

Opinion of the court.

upon the corporations accordingly, pursuant to an order of the court. Charles Goodyear entered his appearance, and demurred. The corporations appeared specially, and moved to dismiss the bill. The demurrer and the motion were both sustained, and the bill was dismissed. The complainants thereupon appealed to this court.

In the argument here, the counsel for the appellants have endeavored to support the bill, upon the ground that it is a cross-bill, having for its object to enforce an offset arising under such circumstances as give a court of equity jurisdiction of the case, and authority to give the relief for which the bill specifically prays. A cross-bill is brought to obtain a discovery in aid of a defense to the original suit, or to obtain complete relief to all the parties as to the matters charged in the original bill. It should not introduce any distinct matter. It is auxiliary to the original suit, and a graft and dependency upon it. If its purpose be different from this, it is not a cross-bill, though it may have a connection with the same general subject. *Mitford*, Pl. 80, 81; *Ayres v. Carver*, 17 How. 591; *Cross v. Del Valle*, 1 Wall. 5. Here the original suit was for the infringement of a patent. The defenses were invalidity of the patent and a license. Neither the case made by the bill nor the defenses set up in the answer had the slightest relation to the judgment in question. It is entirely foreign to the grounds of the controversy. Its only connection with the parties was that it belonged to the defendants, and was against the testator of one of the complainants. Any discovery in relation to it could not give or help any defense to the original suit. It was simply a fact affecting personally a portion of the parties, but no more affecting the litigation than would any other controversy between them as to lands, stocks, or other property. We, therefore, hold the bill to be an original and not a cross-bill.

Can it be sustained as such? When it was filed, no decree

Opinion of the court.

had passed in the original suit for the payment of damages. *Non constat* that such a decree would ever be made. It was possible that the court might annul the interlocutory order, decree for the defendants, and dismiss the bill. The bill before us was, therefore, prematurely filed. The judgment which it seeks to enforce was recovered in a proceeding by attachment. It did not affect the defendant personally, and bound no property but that upon which the grasp of the court was fixed by the service of the writ of attachment. Beyond that it was ineffectual for any purpose. An execution could not be issued upon it to reach other property, and it would not be *prima facie* evidence against the defendant in another suit upon the same cause of action. To enforce the contract against the testator while living, or his executor after his decease, it was necessary to sue, procure personal service, and make the same proofs as if the judgment in attachment had not been rendered. Such a judgment has no more efficacy and can no more be enforced in equity than at law. The demurrer of the executor was well taken and properly sustained. *D'Arcy v. Ketchum*, 11 How. 165; *McVicker v. Beedy*, 31 Maine, 314; Story, Conflict of Laws, sec. 314.

The motion to dismiss was made by the foreign corporations. The bill, being in nowise auxiliary to the original suit nor in continuation of that proceeding, the case was not one proper for substituted service. *Dunn v. Clarke*, 8 Pet. 1. They were not bound to appear. They entered their appearance specially, and appeared only to object to the jurisdiction of the court.

The learned judge who heard the case below was correct in ordering the bill to be dismissed.

The decree of the Circuit Court is affirmed.

Notes and Citations.

Patent in suit:

No. 3,633. Goodyear, C. June 15, 1844. Reissue No. 1,085, November 20, 1860. India-Rubber (Soft).

OTHER SUITS ON SAME PATENT:

See list given in Rubber Co. v. Goodyear. 9 Wall. 788 (p. 188, *ante*).

Statement of the case.

UNITED STATES, EX REL., AUGUSTUS O. BOURNE
v. CHARLES GOODYEAR, EXECUTOR OF CHAS.
GOODYEAR, DECEASED.*

9 Wall., 811. Dec. Term, 1869.

[Bk. 19, L. ed. 786; 2 Whit. 255.]

Argued April 6, 1870. Decided April 25, 1870.

Expired patent. Equity jurisdiction.

1. Where the bill was brought to vacate the extension of a patent, and it appeared that the extension had expired before the suit was commenced, *held* that there was no equity to support the application to set it aside, and the demurrer to the bill must be sustained and the bill dismissed. (p. 210.)
2. Letters Patent No. 3,633, C. Goodyear, June 15, 1844. India-Rubber, extended; expire June 14, 1865. (p. 211.)

Appeal from the Circuit Court of the United States for the Southern District of New York.

The bill in this case was filed in the Circuit Court of the United States for the Southern District of New York, to vacate the extension of a certain patent.

On the 15th June, 1844, letters patent were granted to Charles Goodyear for a new and useful improvement in india-rubber fabrics. This patent was reissued December 25, 1849. It was extended by the Commissioner of Patents as reissued June 15, 1858, and again reissued to the defendant, executor, November 20, 1860.

The extension sought to be vacated expired June 14, 1865. This suit was commenced June 15, 1865. The defendant demurred on the ground, among others, that the extension having expired before the bill was filed, there is no equity to support the bill.

The court below having sustained the demurrer and dismissed the appeal, the case is now here on appeal.

* See Explanation of Notes, page III.

Opinion of the court.

Messrs. J. H. Parsons, A. Payne and C. Cushing, for appellant.

The patent was outstanding and unexpired at the date of the suit commenced in New York, as well as at that of the suit commenced in Connecticut.

In computing time from a date or from the day of a date, the day of the date is to be excluded.

Ang. Lim. 63, and *note*; 4 Kent, Com., 10th ed. 107, *n.* 2; Henry v. Jones, 8 Mass. 455; Sheets v. Selden, 2 Wall. 190.

Further: if the extension of this patent was fraudulent, it was void *ab initio*, and all that grew out of it or came from it, is tainted with the fraud.

The expiration of the term of a grant which is fraudulent, is no bar to relief against claims arising by virtue of that grant. Such claims are as unfounded as the grant itself. They are part of the fraud; they are its direct results. In them the fraud continues to exist. It is against a plain, palpable, existing fraud, that this bill asks relief.

Messrs. E. W. Stoughton and William E. Curtis, for defendant.

A present interest commenced June 15, 1858, and consequently June 15, 1865, when this suit was commenced, was excluded from the term of seven years. The law recognizes no parts of a day; and June 15, 1858, being a part of the term of seven years, the extension could not extend to June 15, 1865.

Pearpoint v. Graham, 4 Wash. (C. C.), 232.

Hence the extension having expired before the bill was filed, there is no equity to support the bill.

Mr. Chief Justice CHASE delivered the opinion of the court.

The extension of the patent sought to be vacated by the proceeding in the record, expired June 14, 1865. The suit was commenced on the 15th of June, 1865.

Notes and Citations.

Hence, the extension having expired before the bill was filed, there is no equity to support the application to set it aside. The extension has ceased to be of any effect, and there remains nothing which can be the subject of a suit.

The demurrer to the bill, therefore, must be sustained, and the decree of the Circuit Court, by which the bill was dismissed must be affirmed.

9 Wall. 811.

Notes :

1. Equity jurisdiction. Expiring and expired patents.

Valve Co. v. Valve Co., 113 U. S. 157.

Clark v. Wooster, 119 U. S. 322.

Beedle v. Bennet, 122 U. S. 71; and see

Root v. Railway Co., 105 U. S. 189.

2. Day on which patent expires:

Mitchell v. Hawley, 16 Wall. 544.

Patent in suit :

No. 3,633. Goodyear, C. June 15, 1844. India Rubber.

Statement of the case.

CHARLES BISCHOFF ET AL., PLAINTIFFS IN ERROR, v. JOHN WETHERED.*

9 Wall., 812-816. Dec. Term, 1869.

[Bk. 19, L. ed. 829; 2 Whit. 255.]

Argued April 22, 1870. Decided April 30, 1870.

English courts. Priority of invention. Questions for jury. Identity of invention.

1. Proceedings in the Common Pleas in England can have no validity here, even of a *prima facie* character. (p. 215.)
2. On questions of priority of invention, the identity or diversity of the several inventions described in the patents produced, is a question of fact for the jury, and the court cannot be called upon to compare the specifications and instruct the jury as a matter of law, whether they are or are not identical. (p. 217.)
3. It is not the *construction of the instrument*, but the character of the thing invented, which is sought in questions of identity and diversity of inventions. (p. 219.)

[Citations in opinion of the court:]

Bovill v. Pimm, 36 Eng. L. & E. 441. p. 218.

Betts v. Menzies, 1 Ell. & Ell. Q. B. 990. p. 218.

Bush v. Fox, 38 Eng. L. & E. 1. p. 218.

The Bridge Proprietors v. The Hoboken Co., 1 Wall. 116. p. 218.

In error to the Circuit Court of the United States for the District of Maryland.

This suit was brought in the court below by the plaintiffs in error, on a judgment recovered in the court of common pleas of Great Britain, for breach of covenant in the assignment of one fortieth part of a certain English patent.

The facts of the case fully appear in the opinion of the court.

The verdict and judgment in the court below having been in favor of the defendant, the case was brought here by the plaintiffs on a writ of error.

* See Explanation of Notes, page III.

Opinion of the court.

Mr. William Meade Addison, for plaintiffs in error.

The patent to Newton was void, because the invention was not novel, the same being substantially described in the patents previously granted to Moses Poole.

No evidence whatever was given to rebut the *prima facie* case made by the judgment in the original action. That judgment was overruled without any evidence of any import in addition to what was before the English court.

Prima facie evidence becomes conclusive if not rebutted. "What is *prima facie* evidence of a fact? It is such as, in judgment of law, is sufficient to establish the fact, and if not rebutted, remains sufficient for the purpose." U. S. v. Wiggins, 14 Pet. 347; Kelley v. Jackson, 6 Pet. 632.

Messrs. John H. B. Latrobe and John Wethered, P. P., for defendant in error.

Mr. Justice BRADLEY delivered the opinion of the court.

This was an action brought by the plaintiffs in error against the defendant, to recover damages for breach of covenant in the assignment of one-fortieth part of an English patent granted to one William Henry Newton. The covenant was that the patent was, in all respects, valid and unimpeachable. The breach complained of was that it was null and void. The declaration contained certain other counts, namely: the ordinary money count, and a count on a judgment recovered in the Common Pleas of Westminster Hall, in England. To the latter count the defendant pleaded *nul tiel record*; and the only evidence adduced in its support was an exemplified copy of a judgment recovered against the defendant in the said common pleas, without any service of process on him, or any notice of the suit other than a personal notice served in the city of Baltimore (a). It is enough to say of this proceeding, that

(a) Wallace inserts "As to the first point raised—to wit, the effect of the proceeding in the Common Pleas at Westminster Hall," and begins opinion here.

Notes and Citations.

it was wholly without jurisdiction of the person, and whatever validity it may have in England, by virtue of statute law against property of the defendant there situate, it can have no validity here, even of a *prima facie* character. It is simply null.

(b) As no evidence was adduced to sustain the common counts, the only question of importance arises under the count of the alleged covenant, that the patent in question was valid and unimpeachable.

This patent was granted to Newton on the 25th of May, 1853, and was for certain improvements in the generation of steam, consisting of an accessory steam pipe carried from the boiler through the fire or chimney, so as to cause the steam conveyed therein to become superheated; and from thence carried to the steam chest or to any intermediate pipe, there to connect with the ordinary steam pipe, which conveys the steam from the boiler to the engine, so as to mix the superheated steam with the ordinary steam as it comes from the boiler. The effect of this mixture is described to be that the superheated steam converts into steam all the remaining watery particles, froth and foam contained in the ordinary steam, and thus dries and rarefies the whole mass, and makes it more effective.

The plaintiff having put in evidence the assignment containing the covenant declared on, and the letters patent granted to Newton, in order to show the breach of covenant, put in evidence a prior English patent granted to one Poole, in 1844, for an invention which the plaintiff claimed was identical with that patented to Newton. The plaintiff then called upon the court to compare the two specifications, and to instruct the jury that the patent to Newton was not a valid and unimpeachable patent, inasmuch as the invention therein described was not novel, but was already substantially described in the specification of Poole; and that under the covenants contained in the assignment, the plaintiffs were entitled to recover £500, the amount of

(b) Wallace omits from b-c.

Opinion of the court.

purchase money paid, with interest. This the court refused to do, and the plaintiffs excepted.

The defendant then prayed the court to instruct the jury, amongst other things, that there is not on the face of the respective patents of Newton and Poole, such an identity as authorized the court to pronounce that they are for one and the same invention, and that for that reason the patent granted to Newton is invalid; and such invalidity being necessary to support the plaintiff's claim, and being wanting, the verdict must be for the defendant. The court granted this prayer, and instructed the jury accordingly, and a verdict was found for the defendant. The plaintiffs excepted to this instruction.

The question, therefore, is: whether the court was bound to compare the two specifications and to instruct the jury as matter of law, whether the inventions therein described were or were not identical.

(c) This is an important question of practice under the Patent Law, and deserves to be seriously considered by this court.

It is undoubtedly, the common practice of the United States Circuit Courts, in actions at law, on questions of priority of invention, where a patent under consideration is attempted to be invalidated by a prior patent, to take the evidence of experts as to the nature of the various mechanisms or manufactures described in the different patents produced, and as to the identity or diversity between them; and to submit all the evidence to the jury under general instructions as to the rules by which they are to consider the evidence. A case may sometimes be so clear that the court may feel no need of an expert to explain the terms of art or the descriptions contained in the respective patents, and may, therefore, feel authorized to leave the question of identity to the jury, under such general instructions as the nature of the documents seems to require. And in such plain cases, the court would, probably, feel authorized to

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set aside a verdict unsatisfactory to itself, as against the weight of evidence. But in all such cases the question would still be treated as a question of fact for the jury, and not as a question of law for the court. And under this rule of practice, counsel would not have the right to require the court, as matter of law, to pronounce upon the identity or diversity of the several inventions described in the patents produced. Such, we think, has been the prevailing rule in this country, and we see no sufficient reason for changing it. The control which the courts can always exercise over unsatisfactory verdicts, will enable them to prevent any wrong or injustice arising from the action of juries; whereas, if the courts themselves were compellable to decide on these often recondite and difficult questions, without the aid of scientific persons familiar with the subjects of the inventions in question, they might be led into irremediable errors, which would produce great injustice to suitors. We are disposed to think that the practice adopted by our courts is, on the whole, the safest and most conducive to justice.

It may be objected to this view that it is the province of the court, and not the jury, to construe the meaning of documentary evidence. This is true. But the specifications of patents for inventions are documents of a peculiar kind. They profess to describe mechanisms and complicated machinery, chemical compositions and other manufactured products, which have their existence *in pais*, outside of the documents themselves; and which are commonly described by terms of the art or mystery to which they respectively belong; and these descriptions and terms of art often require peculiar knowledge and education to understand them aright; and slight verbal variations, scarcely noticeable to a common reader, would be detected by an expert in the art, as indicating an important variation in the invention. Indeed, the whole subject-matter of a patent is an embodied conception outside of the patent

Opinion of the court.

itself, which, to the mind of those expert in the art, stands out in clear and distinct relief, whilst it is often unperceived, or but dimly perceived by the uninitiated. This outward embodiment of the terms contained in the patent is the thing invented, and is to be properly sought, like the explanation of all latent ambiguities arising from the description of external things, by evidence *in pais*.

We are, therefore, of opinion that the Circuit Court was justified in refusing to give the instructions demanded by the plaintiffs, and in giving that which was asked by the defendant.

The precise question has recently undergone considerable discussion in England, and has finally resulted in the same conclusion to which we have arrived. The cases will be found collected in the last edition of Curtis on Patents, section 446. It was at first decided in the cases of *Bovill v. Pimm*, 36 Eng. L. & E. 441; *Betts v. Menzies*, 1 Ell. & Ell., Q. B. 999, and *Bush v. Fox*, 38 Eng. L. & E. 1, that it was the province and duty of the court to compare the documents and decide on the identity or diversity of the inventions. But in 1862, Lord Westbury, in two very elaborate judgments, one of which was delivered in the House of Lords on occasion of overruling the decision in *Betts v. Menzies*, held that it belonged to the province of evidence, and not that of construction, to determine this question. "In all cases, therefore," he concludes, "where the two documents profess to describe an external thing, the identity of signification between the two documents containing the same description, must belong to the province of evidence, and not that of construction. Lord Westbury very justly remarks, that two documents using the same words, if of different dates, may intend very diverse things, as, indeed, was actually decided in this court in the case of *The Bridge Proprietors v. The Hoboken Company*, 1 Wall. 116. The court, in that case, said: "It does not follow that when a newly invented or discovered thing is called by some fa-

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miliar word, which comes nearest to expressing the new idea that the thing so styled is really the thing formerly meant by the familiar word." And the decision was that word "bridge," in an old bridge law, passed in 1790, did not mean the same thing as the same word meant when applied to the modern structure of a railroad bridge.

This view of the case is not intended to, and does not, trench upon the doctrine that the *construction* of written instruments is the province of the court alone. It is not the *construction of the instrument*, but the *character of the thing invented*, which is sought in questions of identity and diversity of inventions.

The judgment of the Circuit Court must be affirmed.

9 Wall. 816.

Notes :

2. Identity, when a question for jury.

Evans v. Eaton, 7 Wheat. 356 [4 Am. & Eng. 105].

Turrill v. Railroad, 1 Wall. 491 [7 Am. & Eng. 202].

Tyler v. Boston, 7 Wall. 327. [p. 1 *ante*].

Tucker v. Spaulding, 13 Wall. 453. [p. 474 *post*].

Heald v. Rice, 104 U. S. 737.

Patent in suit :

English Patent No. 1285. Newton, Wm. E. May 25, 1853.

Improvements in Generation of Steam.

Syllabus.

JAMES C. STIMPSON PLAINTIFF IN ERROR v.
CHARLES T. WOODMAN.*

10 Wall. 117-126. Dec. Term, 1869.

[Bk. 19, L. ed. 866; 2 Whit. 259.]

Reversing Woodman v. Stimpson, 3 Fish. 98.

Argued April 5, 1870. Decided April 25, 1870.

Particular patent construed. Invention. Aggregation.

1. Where letters patent No. 42,136, C. T. Woodman, March 29, 1864, Ornamenting Machine, claiming "boarding or pebbling skins or leather by means of a single short cylinder rolling over a table with the requisite pressure," was construed to be for the combination of the figured roller with the machine for operating it, and it appeared that a figured roller had been worked by hand for the same purpose, and that a smooth-faced leather roller had been used in a similar machine, *held* an instruction to the jury, that if plaintiff's machine had been anticipated in every part of its construction, except the figures or designs on the roller, which roller was old, he was not entitled to recover, was erroneously refused. (p. 235.)
2. *Held* further, the machine being old, and the figured roller worked by pressure old, it did not require invention, but involved simple mechanical skill to stamp the figure on the smooth-faced roller of the machine, or to substitute the old figured roller for the purpose. (p. 235.)

[Citations in dissenting opinion.]

Agawan Co. v. Jordan, 7 Wall. 596. [p, 24 ante]. p. 236.

Curtis, Pat., sec. 225. p. 238.

Turrill v. R. R., 1 Wall. 510 [7 Am. & Eng. 202]. p. 238.

Ryan v. Goodwin, 3 Sumn. 520. p. 238.

Le Roy v. Tatham, 22 How. 132 [7 Am. & Eng. 29]. p. 238.

Many v. Jagger, 1 Blatch. 372. p. 240.

Wilbur v. Beecher, 2 Blatch. 132. p. 240.

Curtis, Pat., sec. 41. p. 240.

Lowell v. Lewis, 1 Mas. 182. p. 240.

*See Explanation of Notes, page IIL

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Winans v. R. R. Co., 2 Blatch. 297. p. 240.

Bedford v. Hunt, 1 Mas. 802. p. 240.

Hall v. Wills, 2 Blatch. 194. p. 240.

Union Sug. Ref. v. Matthiessen, 2 Fish. 605. p. 240.

Prouty v. Ruggles, 16 Pet. 341 [4 Am. & Eng. 351]. p. 241.

Carver v. Hyde, 16 Pet. 520 [4 Am. & Eng. 367]. p. 241.

Stimpson v. R. R., 10 How. 346 [5 Am. & Eng. 129]. p. 241.

Barrett v. Hall, 1 Mas. 477. p. 241.

Howe v. Abbott, 2 Story, 194. p. 241.

In error to the Circuit Court of the United States for the District of Massachusetts.

This action was brought in the court below by the defendant in error, to recover damages for the alleged infringement of certain letters patent.

The trial resulted in a verdict and judgment for \$4.17, with costs, taxed at \$214.75 in favor of the plaintiff. Whereupon the defendant sued out this writ of error.

A very full statement of the case appears in the opinion of the court.

The letters patent referred to in the opinion is as follows:

C. T. WOODMAN, OF BOSTON, MASSACHUSETTS.

MACHINE FOR ORNAMENTING LEATHER.

Specification forming part of Letters Patent No. 42,136, dated
March 29, 1864.

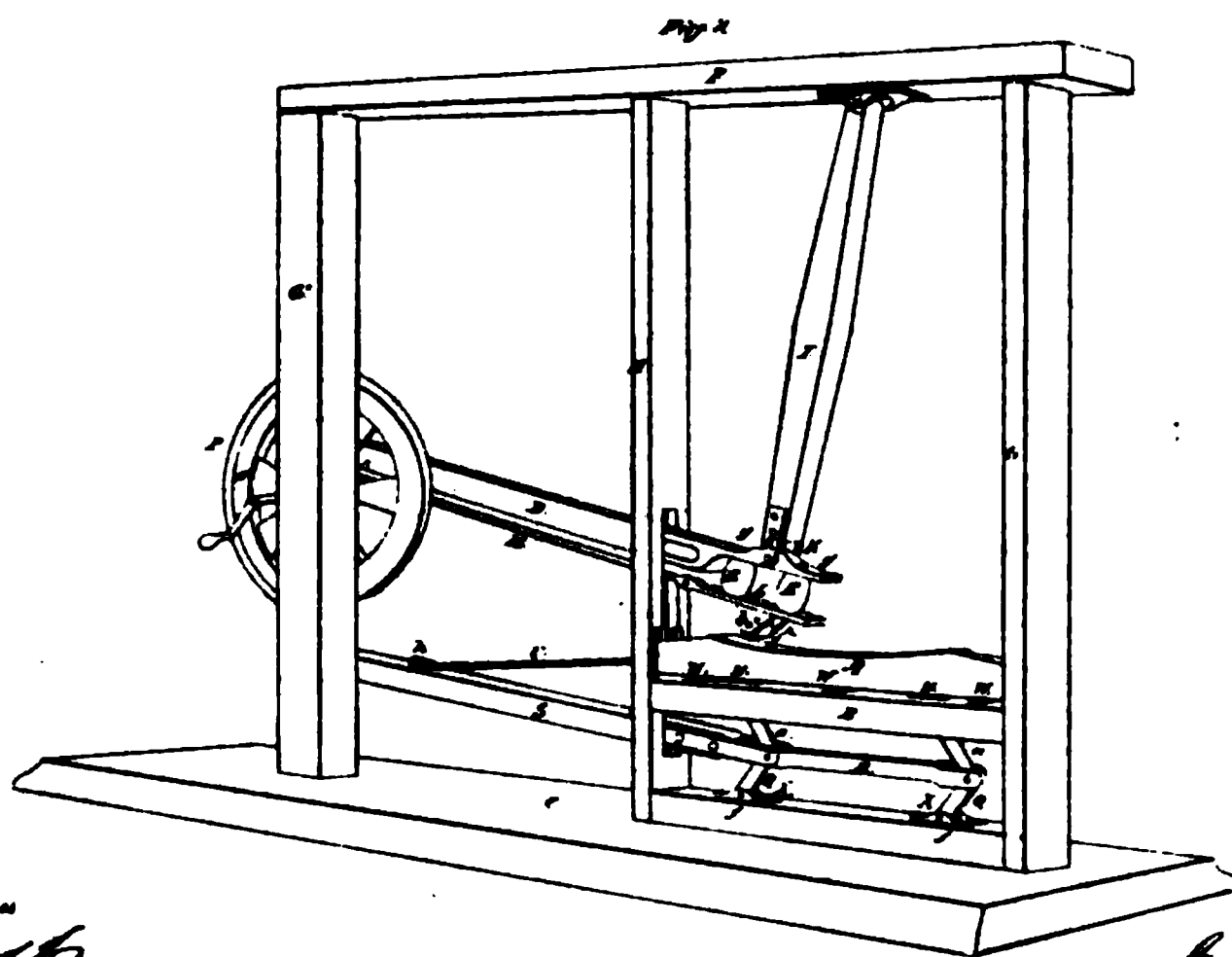
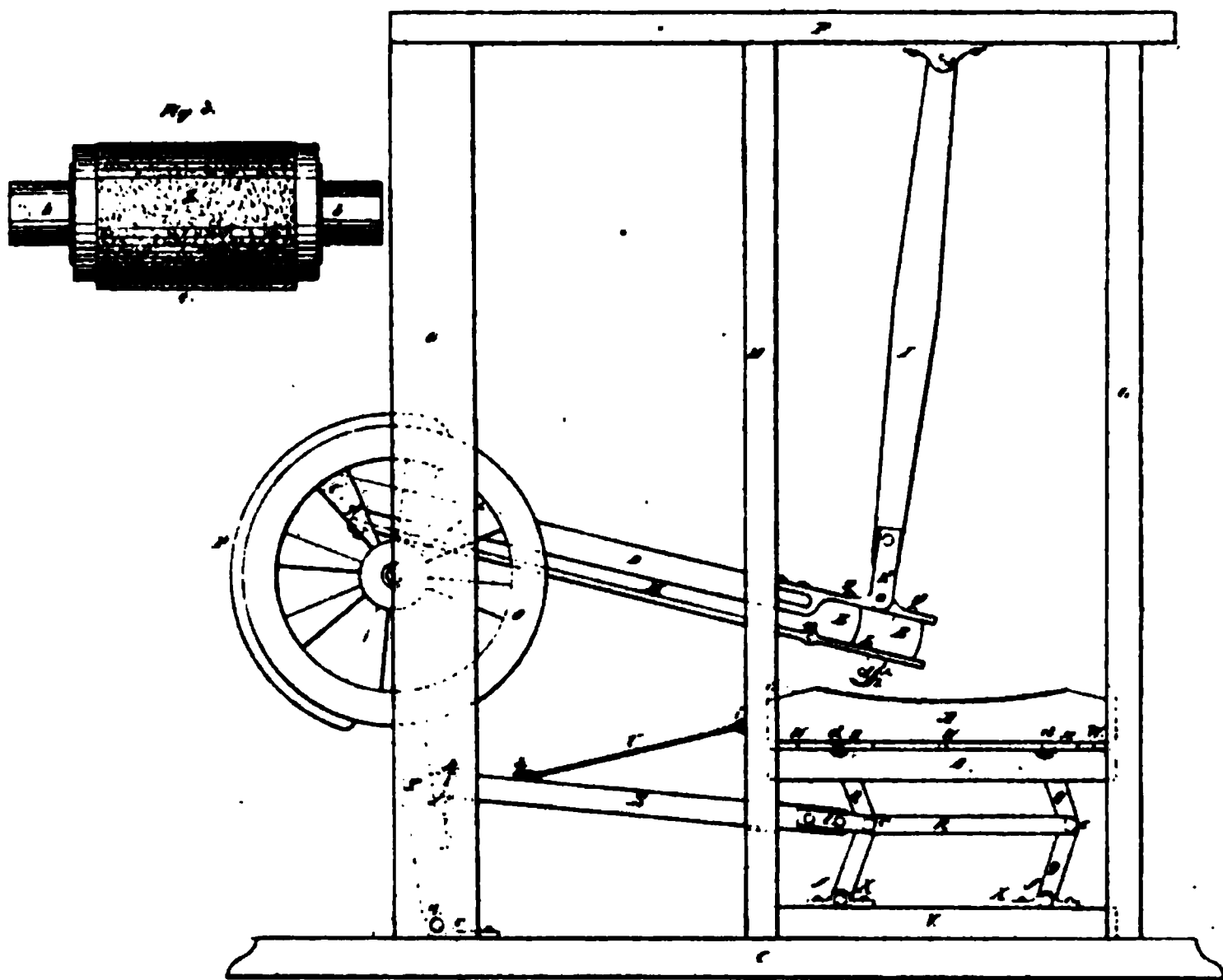
To all whom it may concern :

Be it known that I, C. T. Woodman, of Boston, in the county of Suffolk, and State of Massachusetts, have invented a new and useful Improvement in Boarding or Pebbling Leather; and I do hereby declare that the following is a full, clear, and exact description of the construction and operation of the same, reference being had to the accompanying drawings, forming a part of this specification, in which—

*C. T. Woodman,
Dressing Leather.*

Nº 42,136.

Patented Mar. 29, 1864.



Witness
A. A. Wood
M. Wood

Inventor
C. T. Woodman

Statement of the case.

Fig. 1 is a side elevation ; Fig. 2, a perspective view, and Fig. 3, a perspective view (full size) of the pebbling roller removed from the machine and resting on a strip of leather, *t*.

Like parts are indicated by the same letters in all the drawings.

What is known as a "boarded" or "pebbled" grain or finish has hitherto been given to leather by what is called the "boarding operation," which consists in doubling the skin over onto itself on a table, so that the flesh side shall be out, and then forcing or rucking one part over the other in different directions by means of a flat "cork-board," which breaks or wrinkles the grain, and gives it a rough, checkered, or pebbled appearance. This operation is performed by hand, and is very slow and laborious, and produces only one particular kind of finish.

The nature of my invention therefore consists in producing this pebbled or boarded grain or finish on leather by subjecting it to the pressure of a short revolving cylinder or roller, of steel or other suitable metal, having the required design or figure engraved or sunk in its periphery.

My improvement further consists in combining with said roller a certain new and useful combination of mechanical devices for carrying my invention into practical operation, so as to accomplish the object desired with great rapidity and cheapness.

Z (a full-sized perspective view of which is shown in Fig. 3) is a roller, about two inches in diameter and three inches in length. This roller may be made of any suitable metal, though steel is the best, as it may be rendered very hard by tempering. In the periphery of the roller is engraved or sunk any style of figure, either such as to produce on leather the pebbled surface made by the usual method of boarding, or any other fancy figure that may be required.

Owing to the varying thickness of different parts of a skin, the roller Z should not be more than from three to

Statement of the case.

five inches in length, or else it would fail to bear sufficiently hard upon the thinner portions.

It is obvious that my pebbled roller may be combined with various mechanical devices whereby it can be rolled with sufficient pressure over a skin or piece of leather. I will, however, now describe a combination of devices which I find to answer every purpose required.

C may represent a wooden platform or the floor of a room, and F may be either the top of a frame, supported by the three uprights, G H and G', or it may be the top or ceiling of a room.

A is a wooden table, about four feet and six inches long and five inches wide, the two ends of which slide up and down freely in vertical slots in the uprights, G and H, as shown in Fig. 1. The upper surface of this table, on which the leather to be boarded or pebbled is placed, is the arc of a circle whose center is at J, at the top of the pendulum, I. This table, when the roller Z is going back over it, is lowered, and rests on three strips of rubber, W W W, placed upon the stationary beam, B, the extremities of which are framed into the uprights, G and H. The rubber strips, W, are also designed to prevent noise and jar when the table descends.

Q Q Q Q are two sets of toggle arms, the contiguous ends of which are connected by pivots, *e e*, in the forked ends of the connecting-arm, R, as shown in Figs. 1 and 2, the upper ends of the top arms being pivoted at *d d* to slotted cleats, *y y*, attached to the bottom of the table, A. The two upper arms also pass through slots in the beam, B, as shown by the dotted lines in Fig. 1. The two lower arms are attached to pivots *f f* in the slotted cleats, X X, which are fast to the frame-beam, V. When these toggle arms are perpendicular, the table A will be elevated, so that the roller Z will rest upon it.

S is an arm, of wood or iron, one end of which is pivoted at *l* to the arm, R, and the other at *k* to the slotted cleat, *j*, which, as shown in Fig. 1, is fast to the vibrating arm,

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T, the lower end of which is pivoted at *u* to the slotted cleat, *v*.

U is an india-rubber or other suitable spring, one extremity of which is attached to the staple *i* in the upright, H, and the other to the staple *h* in the arm S, the object of said spring being to instantly lower the table, A, through the intervention of the arm, S, whenever the top of arm T is not acted upon by the cam P on the periphery of the fly-wheel, O, which turns on suitable bearings in the upright, G'.

I is a pendant arm, the length of which may vary, according to circumstances, from four or six feet to any length which the room or building in which the machine is placed may allow. The longer it is the straighter and better will be the top of the table, A. The pendulum I swings freely on the pivot J at the top, its lower end being provided on each side with iron strips, K K, as shown in Fig. 2.

D is a wooden arm, the front end of which passes between the strips, K K, and is connected with them by the pivot, *a*, the back end of D being connected with the fly-wheel O by means of pin, *c*, as shown in Fig. 1.

L is a flat strip of metal, as wide as the top of the arm, D, and provided on its under side with two ears, *xx*, between which the roller Z is placed and in which revolve its journals, *bb*.

E E are compressible rubber springs, through whose centers pass the headed bolts, *gg*, which, entering the piece, L, keep it in place. As the bolts *gg* pass freely through holes in D, the piece L and roller Z will, of course, rise as the springs E E are compressed.

M is a connecting rod, one end of which is pivoted to L at *m*, the other being fast to the stud N in the rear of the arm, D. Thus it is obvious that the roller Z will bear upon the table A during one-half of its orbit, and be raised above it, as in the drawings, during the other half, and that the leather, being placed upon the table A and moved along by

Argument of counsel.

an attendant as fast as required, will be boarded or pebbled with great rapidity, cheapness, and in a superior manner.

I do not claim embossing by means of two or more cylinders working together; but

What I do claim as new, and desire to secure by letters patent, is—

1. Boarding or pebbling skins or leather by means of a single short cylinder rolling over a table with the requisite pressure, substantially as described.

2. Raising and lowering the table A by means of the toggles Q, arm S, spring U, arm T, and cam P, or their equivalents, substantially as set forth, and for the purpose described.

C. T. WOODMAN.

Witnesses:

ELI THAYER,
ELI THAYER, Jr.

Messrs. B. R. Curtis and Geo. L. Roberts, for plaintiff in error:

The introduction of the pebbling roller into the Green machine, in the same mode and for the same purpose that it had been previously introduced into the analogous Garnar machines, is not such a new combination as is patentable, but is rather a double use of the pebbling roller, or a double use of the Green machine.

It was, therefore, proper and material to submit to the determination of the jury in this case the following questions of fact:

1. Whether the pebbling roller itself was old and had been used in the Garnar machine.

2. Whether the Green machine, apart from the pebbling roller, was old.

3. Whether the Garnar machine, as leather finishing machines, was analogous to the Green machine.

4. Whether the mode of introduction of the pebbling roller into the Green machine was substantially the same

Argument of counsel.

as in the Garnar machine, and was within the common knowledge and skill of mechanics.

5. Whether the purpose and effect of the use of the pebbling roller in the Green machine was substantially the same as the purpose and effect of its prior use in the Garnar machines, or in the hand devices.

Such, in substance, is what the court below was prayed to instruct the jury; and if the jury had found all the facts in the affirmative, then the court should have ruled, as matter of law, that the first claim of the patent of the plaintiff below was void, under any construction that did not include, as an essential part of the combination therein claimed, the mechanical devices for alternately raising and lowering the table, by which alone it is made to differ from the Green machine; and that the defendant below could not be restrained by the patent of the plaintiff below from using the said Green machine or any other machine substantially like it, for operating the pebbling roller.

This doctrine is uniformly held in England, and it appears to be the settled law of this country, although the decisions upon the subject in our courts are not so recent nor so numerous as in the English courts; the obvious reason being, that the scrutiny of the United States Patent Office has been so great that patents have rarely issued for supposed inventions of this character, as will readily be perceived by reference to the cases appealed from the Commissioner of Patents.

Cochrane v. Waterman, Law's Dig. 488, sec. 6; Hazard v. Green, Law's Dig. 488, sec. 8; Rawson, *ex parte*, Law's Dig. 490, sec. 28; Wheeler, *ex parte*, Law's Dig. 490, sec. 29; Orr, *ex parte*, Law's Dig. 475, sec. 13; Blandy, *ex parte*, Law's Dig. 254, sec. 6; 490, sec. 23; Allen, *ex parte*, Law's Dig. 254, sec. 8; 490, sec. 26; Marsh, *ex parte*, Law's Dig. 254, sec. 9; 490, sec. 27; Berry, *ex parte*, Law's Dig. 254, sec. 10; Bean v. Smallwood, 2 Story, 408; Winans v. R. R., 2 Story, 412; Losh v. Hague, Web. Pat. Cas., 202 [2 Am. & Eng. 501]; Harwood v. Railway, 11 H. of L. Cas.,

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654 ; Regina v. Cutler, 3 Car. & Kir., 215 ; Parkes v. Stevens, L. R., 8 Eq. 358 ; Jordan v. Moore, L. R., 1 C. P. 624 ; Horton v. Mabon, 12 C. B. (N. S.) 437 ; 16 C. B. (N. S.) 141 ; Hotchkiss v. Greenwood, 11 How. 248 [5 Am. & Eng. 240] ; Kay v. Marshall, 5 Bing. (N. C.) 492 ; Howe v. Abbott, 2 Story, 190 ; Phillips v. Page, 24 How. 164 [7 Am. & Eng. 97] ; Bush v. Fox, 5 H. of L. Cas. 707 ; Bottle Envelope Co. v. Seymer, 5 C. B. (N. S.) 164.

Mr. T. L. Wakefield, for defendant in error:

Patents are to be construed liberally in favor of the patentee ; so construed, if possible, that the inventor shall have the benefit of what he has actually invented, if he has invented anything.

Corning v. Burden, 15 How. 269 [6 Am. & Eng. 69] ; Pitts v. Whitman, 2 Story, 621 ; Carver v. Braintree Mfg. Co., 2 Story, 446 ; Ames v. Howard, 1 Sumn. 485 ; Ryan v. Goodwin, 3 Sumn. 520.

1. A patent for a combination of elements or parts previously known in a machine is valid, if the result produced by such combination is either a new article or a better article, or a cheaper article to the public, either an old effect, better or cheaper or a new one.

Curt. 67 ; Crane v. Price, 5 Scott (N. R.) 339 ; Buck v. Hermance, 1 Blatchf. 404 ; Pitts v. Whitman, 2 Story, 618, &c. ; O'Reilly v. Morse, 15 How. 123 [5 Am. & Eng. 483] ; McCormick v. Seymour, 2 Blatchf. 246 ; Furbush v. Cook, 2 Fish. 672 ; Foster v. Moore, 1 Curt. 291 ; Wilson v. Barnum, 2 Fish. 635.

It is not important whether it required much or little thought, study or experience, to make the combination, or much or little expense to devise and execute it ; and it is decisive that a new mode of operation has been introduced, if either a new effect, or a better effect, or as good an effect more economically attained, is produced by the change.

Furbush v. Cook (*supra*) ; Earle v. Sawyer, 4 Mas. 1 ;

Opinion of the court.

Davoll v. Brown, 1 Wood. & M. 53; Russell v. Cowley, Web. Pat. Cas. 464 [2 Am. & Eng. 9].

The effect or result produced by the two combinations is a practical test of the identity of the combinations, and the patentability of the plaintiff's invention.

Curt. Pat., secs. 8, 9, 14, 15, and *notes*: secs. 330, 331, and *notes*; Hall v. Wiles, 2 Blatchf. 200, Law's Dig. 423.

A useful new result implies invention in the machine to produce the effect. Furbush v. Cook, 2 Fish. 672.

Mr. Justice NELSON delivered the opinion of the court.

This is a writ of error to the Circuit Court of the United States for the District of Massachusetts. The suit was brought in the court below, by Woodman against Stimpson, to recover damages for an infringement of a patent granted on the 29th March, 1864, for "a new and useful machine for ornamenting leather," as stated in the letters patent. In the specification the plaintiff states he has "invented a new and useful improvement in boarding or pebbling leather," and describes how this process was formerly carried on. He says:

"What is known as a boarded or pebbled grain or finish has hitherto been given to leather by what is called the boarding operation, which consists in doubling the skin over on to itself on a table so that the flesh side shall be out, and then forcing or rucking one part over the other, in different directions, by means of a flat cork board, which breaks or wrinkles the grain and gives it a rough, checkered or pebbled appearance. This operation is performed by hand, and is very slow and laborious, and produces only one particular kind of finish." He then observes: "The nature of my invention, therefore, consists in producing this 'pebbled' or 'boarded' grain or finish on leather by subjecting it to the pressure of a short revolving cylinder or roller of steel, or other suitable metal, having the required design or figure engraved or sunk on its periphery.

Omitted in Wall.

Opinion of the court.

My improvement further consists in combining with said roller, a new and useful combination of mechanical devices for carrying my invention into practical operation, so as to accomplish the object desired with great rapidity and cheapness."

He further observes: "It is obvious that my pebble roller may be combined with various mechanical devices whereby it can be rolled with sufficient pressure over a skin of leather. I will, however, now describe a combination of devices which I find to answer every purpose required." The plaintiff then described with great minuteness the machine and every part of it, and closes with his claims.

First. "Boarding or pebbling skins or leather by means of a single short cylinder rolling over a table with the requisite pressure, substantially as described."

Second. "I also claim raising and lowering the table, 'A,' by means of the toggles 'Q,' arm 'S,' spring 'U,' arm 'T' and cam 'P,' or their equivalent, substantially as set forth and for the purposes described."

The second claim is not in the case, as the arrangement or contrivance is not found in the defendant's machine. The first is the only one in question.

That is, as we have seen, "boarding or pebbling" skins or leather by means of a single short cylinder rolling over a table with the requisite pressure, substantially as described; which means, as we understand the claim, finishing or figuring the leather by means of a revolving roller, the design or figure engraved or sunk in its periphery, and worked over the grain of the leather by the use of the machinery described, or by machinery substantially like it.

Now, it is admitted in the bill of exceptions, that evidence was given on the trial by the defendant, tending to show that prior to the plaintiff's invention, board or pebble grain or finish, described in his patent as produced by him, had been produced on leather by subjecting it to the pressure of a short revolving cylinder of steel or other

Omitted in Wall.

Opinion of the court.

metal, having the required design or figure engraved or sunk on its periphery, and rolling over a table upon which the leather was placed; and that the said revolving figured cylinders, which are known in the case as "pebbling rollers," were operated with the requisite pressure by means of hand devices.

It is also admitted the defendant gave evidence tending to show that prior to the plaintiff's improvement, there was known and used a machine which, in its substantial combination or arrangement of its parts, co-operating together for the purpose of impressing the surface of leather, differed in no material respect from the machine described in the letters patent, whereof a model was produced, except in respect to the mechanism for raising and lowering a table (not in the defendant's machine), and except that, instead of operating a short revolving roller like the plaintiff's, having a figured surface for the purpose of producing the pebbled grain or leather, it operates a short revolving metallic roller having a smooth surface, for the purpose of giving to the leather a closer natural grain; that this was the only diversity between the two machines, and that having the smooth roller, instead of the roller with the ornamented surface, made no difference in the substantial combination or arrangement of the machinery co-operating together in said machines for the purpose of doing the work. Now, (a) taking this evidence as thus stated in the bill of exceptions, it will be seen that the only difference between the prior machine and the plaintiff's, in its combination and arrangement and in its working and effect upon the leather is, that the metallic roller in the former had a smooth, and in the latter a figured surface. In all other respects, the two machines were the same. But, as also appears in the bill of exceptions, this figured revolving roller was old, and the use of it in pebbling leather was

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also old and well known. Neither the plaintiff nor the defendant could claim any right to it as inventors.

The same pebbled grain or finish as described in plaintiff's patent had already been produced on leather by subjecting it to a pressure while rolling over the table on which the leather was placed; but this pressure was produced by means of hand devices.

The field of invention was open to any person to construct new devices or machinery by means of which to operate this old instrument in "pebbling leather," in the language of the patentee in this case, "so as to accomplish the object desired, with greater rapidity and cheapness." And this the plaintiff would have accomplished by his machine, if he had not been anticipated. But the case admits that evidence was given, tending to show that the device or machine he has patented for the purpose, so far as used by the defendant, was the same as the Green machine, which was prior in date.

(b) We are now prepared to look at the second instruction to the jury, prayed for by the defendant, which is: "If they find that the form of the surface of the roller in the plaintiff's machine is not material to the mechanical action of the roller in combination with the other devices, and their arrangements by which the roller is moved, the leather supported, and the pressure made; and if they find that before the plaintiff's invention a machine was known and used, not differing substantially from the plaintiff's machine in any other respect, but having a roller for giving a finish to leather, the surface of this roller was different from that specifically shown and described in plaintiff's patent; and if they find that before the plaintiff's invention, rollers having such a surface as the plaintiff's substantially, were known and used in other machines for the same purpose, the plaintiff's patent for the first claim is void." (c)

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(d) This prayer is somewhat involved and obscured by too much verbiage, but when analyzed and understood, it was clearly warranted and supported by the evidence, and should have been given.

In substance it is, if the jury should find that the figured roller in the plaintiff's machine was not material to the mechanical action of the roller in the combination and arrangement of the machinery by which it was moved, the leather supported, and the pressure made; and if they find that before the plaintiff's a machine was known and in use similar to his, except the surface of the roller was smooth; and if they find that before the plaintiff's invention figured rollers were known and used in other machines for the same purpose, then the plaintiff's first claim was void. In other words and, in short, if the plaintiff's machine had been anticipated in every part of its construction except the figures or designs on the roller, which roller was old, he was not entitled to recover. This instruction was refused, which, for the reasons already stated, we think was error.

There is, also, another ground upon which we think this instruction should have been given. Assuming the plaintiff to have been anticipated in the construction of his machine in every part of it, except that the prior machine used a smooth revolving roller, and the plaintiff a figured one, but which figured roller had been used for pebbling leather by pressure, and was well known, all of which the jury would have been warranted in finding, the engraving, or stamping of the figure upon the surface of the smooth roller, or the substitution of the old figured roller for the purpose, required no invention; the change with the existing knowledge in the art involved simply mechanical skill, which is not patentable.

Judgment reversed. Venire de novo.

10 Wall. 120-121.

(d) Wallace substitutes for "This prayer" "The prayer for the second instruction to the jury prayed for by the defendant."

Dissenting opinion.

Mr. Justice CLIFFORD dissenting.

Inventions secured by letters patent are property and, as such, they are under the protection of the Constitution of the United States and the laws of Congress. When duly secured in that way the patentee acquires the exclusive right, if the invention is a machine, to make and use the same and to vend it to others to be used during the entire term for which it was granted, as provided by law. Vested with that exclusive right he may have an action on the case to recover damages against any person who infringes his exclusive right; and on the trial of the case, to the jury he may introduce his letters patent in evidence, and when so introduced the letters patent afford a *prima facie* presumption that the patentee is the original and first inventor of what is therein described as his improvement; and the defendant, if he denies that proposition, takes the burden to establish the affirmative of the general issue or of the notices filed in that behalf. *Agawam Co. v. Jordan*, 7 Wall. 596 [p. 24, *ante*].

Letters patent bearing date the 29th of March, 1864, were granted to the plaintiff for a new and useful improvement in boarding and pebbling leather, which, as described, consists in giving to the surface of the leather a checkered or pebbled appearance by subjecting the leather on the finished side to the pressure of a short, engraved revolving cylinder or roller, made of steel or other suitable metal, having the required design or figure engraved on the periphery of the device. My improvement, says the patentee, consists *in combining* with said *roller* a certain new and useful *combination* of mechanical devices for carrying my invention into practical operation, so as to accomplish the object desired with great rapidity and cheapness.

Nothing can be plainer than is the meaning of those two passages in the specification, the substance of which is here reproduced. In the first passage he describes the result or effect which his invention will produce, and in the second

: Dissenting opinion.

he gives a terse general description of the invention itself, alleging that it consists in combining with the roller a certain new and useful combination of devices to accomplish the work. Had the patentee stopped there the specification might perhaps have been regarded as wanting that full, clear and exact description of the invention which is required by the 6th section of the Patent Act. 5 Stat. at L. 119.

But the patentee did not stop there, as fully appears by what immediately follows in the specification. On the contrary, he gives a minute description of the roller, and then proceeds to describe the several mechanical devices to be combined with the roller, and which, as he says, will answer every purpose to produce the required effect; and in conclusion he gives a minute description of every element composing the organized machine described in the patent as it was issued.

Exact description is also given of the several devices composing the apparatus for raising and lowering the table on which the leather is placed as it is subjected to the operation of the pebbling instrument. Such an apparatus is essential to the effective operation of the machine, as the table must be raised in order that the leather may be subjected to the pressure of the roller or pebbling instrument as it passes over the upper surface, and it must also be lowered in order that the arm to which the pebbling instrument is attached may pass back, and it is obvious that the contrivance is ingenious and useful.

What the patentee claims is as follows; First, boarding or pebbling skins or leather by means of a single short cylinder rolling over a table with the requisite pressure *substantially as described*. Striking out the words "substantially as described," it might be contended that the claim is for the effect and not for the means by which the effect is produced, but such a construction cannot be main-

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tained for a moment, as it would be contrary to the settled rules of law everywhere applied in such cases.

Patents for inventions are not to be treated as mere monopolies and, therefore, as odious in the law, but they are to receive a liberal construction, and under a fair application of the rule that they be construed *ut res magis valeat quam pereat*. Hence where the claim immediately follows the description, it may be construed, says Curtis, in connection with the explanations contained in the specification, and be enlarged or restricted accordingly. Curt. Pat. sec. 225; Turrill v. R. R., 1 Wall. 510 [7 Am. & Eng. 202]; Ryan v. Goodwin, 3 Sumn. 520.

Construed in view of that rule, it is clear, to a demonstration, that the first claim of a patent is for the means described in the specification for accomplishing the effect, which is the exact view taken of the claim by the presiding justice in the court below.

Strike out the second claim and it might be contended that the first claim covers the whole invention, including the apparatus for raising and lowering the table as well as the combination of devices for pebbling the leather, but the whole specification must be construed together, and when so construed it is clear that the claims were intended to be distinct, as the second claim not only specifies the "raising and lowering of the table," but it also includes by name every one of the described devices to perform that office.

Giving due weight to these considerations, it is as clear as anything can be that the first claim of a patent is a claim for a combination of the described mechanical devices, with a roller for carrying the invention into practical operation, and for accomplishing the described result by the described means, excluding the apparatus for raising and lowering the table, which is included in the second claim. Le Roy v. Tatham, 22 How. 132 [7 Am. & Eng. 29].

Influenced by these considerations, I dissent from the

Dissenting opinion.

opinion of the court, because it adopts an erroneous construction of the patent, and one utterly at variance with the whole tenor of the specification and the language of the claim.

Some attempt was made at the trial to show that the invention of the plaintiff was superseded by the machine of Garnar, or by that of Green, but the attempt was an utter failure, and the jury found the issue in favor of the plaintiff. Questions of fact are certainly for the jury, and it is too plain for argument that the finding of the jury cannot be revised here under a bill of exceptions. Suppose, however, it were otherwise, still it would be impossible to come to any other conclusion than that their finding is right.

Take the Garnar machine, which is the first in order as the evidence is exhibited in the bill of exception. Evidence was introduced by the plaintiff, showing not only that the machine differed from the machine of the plaintiff, but that it operated in a substantially different manner, and produced a substantially different effect upon the leather, which must be obvious, upon comparing the two machines, to everyone having any acquaintance upon (e) the subject. Equally decisive evidence was also introduced by the plaintiff showing that the Green machine did not supersede his patent. Among other things the plaintiff proved that the figuring instrument described in that patent was not a revolving instrument, but an instrument for rubbing the leather, as appears by the model; that the adaptation of the pebbling roller to that machine, so that the same could be practically used therein, would require invention and was not within the common knowledge and skill of a mechanic, and that a figured, rotating cylinder, such as is described in the plaintiff's patent, had not, in fact, been introduced and operated in that machine prior to the plaintiff's invention.

Remark upon the question of infringement is not nec-

10 WALL. 124-125.

(e) Wallace substitutes for "upon" "with."

Dissenting opinion.

essary, as that issue was found by the jury for the plaintiff, and there is no exception calling for any review of the instructions given by the court.

Suggestion is made in the opinion just read that perhaps the judgment might be reversed upon the ground that the invention was not patentable. *Many v. Jagger*, 1 Blatchf. 372; *Wilbur v. Beecher*, 2 Blatchf. 132. Patented inventions which are not new and useful, or which did not require any invention as compared with what existed, and was in use before, may, doubtless, be held invalid on that account, but the question whether a particular invention is new and useful, or whether it did require any invention to produce it, as compared with what existed before, are everywhere admitted to be questions of fact for the jury, and certainly no such question is open here for the determination of this court under this bill of exceptions. *Curtis Pat. sec. 41*; *Lowell v. Lewis*, 1 Mas. 182; *Winans v. R. R. Co.*, 2 Blatchf. 297; *Bedford v. Hunt*, 1 Mas. 302; *Hall v. Wills*, 2 Blatchf. 194. Such a remark cannot have been well considered, as the authorities are all the other way; but if it were otherwise the bill of exceptions shows that the finding of the jury was right, as it appears that the pebble finish can be made cheaper and better by the plaintiff's machine than by any other machine or instrument known in the trade, which is a complete answer to both suggestions.

Valuable as the property of the plaintiff in this invention is, I cannot concur in the judgment which assigns it to an infringer. Most modern patents are for new combinations of old elements, just like the present one, but many of them are of great utility, and they are as much within the protection of the patent law as those of any other class. *Union Sug. Ref. v. Mathiessen*, 2 Fish. 605. Such patents being for the combination only, no one can be held liable for infringing the invention unless it be shown that the infringer uses all of the elements which compose the combi-

Notes and Citations.

nation, showing that the public have the most ample security that nothing will be protected by the patent except what was, in fact, invented by the patentee. *Prouty v. Ruggles*, 16 Pet. 341 [4 Am. & Eng. 351]; *Carver v. Hyde*, 16 Pet. 520 [4 Am. & Eng. 367]; *Stimpson v. R. R.*, 10 How. 346 [5 Am. & Eng. 129]; *Barret v. Hall*, 1 Mas. 477; *Howe v. Abbott*, 2 Story, 194.

Where an invention is for distinct combinations which are separable, and where it embraces two distinct improvements, one having respect to the operative part of the machine and the other to the motive power, it is entirely competent for the Commissioner to grant separate claims for the two combinations in the same patent, or he may, under existing laws, grant separate patents for each combination, if it is new and produces a new and useful result.

Two combinations are embraced in this patent: one consisting of a combination of certain described mechanical devices with the roller to do the work of pebbling the leather; the other consists of the described combination to raise and lower the table; and the one last named is admitted to be new and useful and, therefore, valid, but the opinion of the court surrenders the first one to infringers, and of course the property of the inventor is rendered of no value.

10 Wall. 136.

Notes:

1. Aggregation is not patentable invention.

Hailes v. Van Wormer, 20 Wall. 353.*Reckendorfer v. Faber*, 92 U. S. 347.*Rubber Coated Harness Co. v. Welling*, 97 U. S. 7.*Pickering v. McCullough*, 104 U. S. 310.*Packing Co. Cases*, 105 U. S. 566.*Tack Co. v. Two Rivers Mnfg. Co.*, 109 U. S. 117.*Bussey v. Excelsior Mnfg. Co.*, 110 U. S. 131.*Stephenson v. Brooklyn Ry. Co.*, 114 U. S. 149.*Beecher Mnfg Co. v. Atwater Mnfg. Co.* 114 U. S. 523.

Notes and Citations,

Thatcher Heating Co. *v.* Burtis, 121 U. S. 286.

Mosler Safe, &c. Co. *v.* Mosler, Bahmann & Co., 127 U. S. 354.

Hendy *v.* The Golden State and Miners Iron Works, 127 U. S. 370.

2. Substitution not involving invention.

Hotchkiss *v.* Greenwood, 11 How. 248 [5 Am. & Eng, 240].

Hicks *v.* Kelsey, 18 Wall. 670.

Reckendorfer *v.* Faber, 92 U. S. 347.

Smith *v.* Goodyear D. V. Co., 93 U. S. 486.

Terhune *v.* Phillips, 99 U. S. 592.

Patent in suit :

No. 42,136. Woodman, C. T. March 29, 1864. Leather
Ornamenting Machine.

OTHER SUITS ON SAME PATENT :

Woodman *v.* Stimpson, 1866. 3 Fish. 98.

Woodman *v.* Guild, 1872. 4 Cliff. 185.

Cited :

IN SUPREME COURT IN :

Reckendorfer *v.* Faber, 1876. 92 U. S. 347 ; Bk. 23, L. ed. 719.

Dunbar *v.* Meyers, 1876. 94 U. S. 187 ; Bk. 24, L. ed. 34.

Notes and Citations.

Packing Co. Cases, 1882. 105 U. S. 566 ; Bk. 26, L. ed. 1172.
Slawson *v.* Grand St., Prospect Park, and Flatbush R. R. Co., 1883.
107 U. S. 649 ; Bk. 27, L. ed. 576.
Phillips *v.* Detroit, 1884. 111 U. S. 604 ; Bk. 28, L. ed. 532.
Stephenson *v.* Brooklyn Cross Town R. R. Co., 1885. 114 U. S.
149 ; Bk. 29, L. ed. 58.
Eachus *v.* Broomall, 1885. 115 U. S. 429 ; Bk. 29, L. ed. 419.

IN CIRCUIT COURTS IN :

Bailey Washing and Wringing Machine Co. *v.* Lincoln, March, 1871.
4 Fish. 379.
Sarven *v.* Hall, April, 1872. 9 Blatch. 524 ; 5 Fish. 415.
Woodman Pebbling Machine Co. *v.* Guild, May, 1872. 4 Cliff. 185.
Milligan & Higgins Glue Co. *v.* Upton, October, 1874. 4 Cliff.
237 ; 1 Ban. & Ard. 497 ; 6 O. G. 837.
Putnam *v.* Weatherbee, May, 1875. 1 Holmes 497 ; 2 Ban. Ard. 78.
Alcott *v.* Young, March, 1879, 16 Blatch. 134 ; 4 Ban. & Ard.
197 ; 16 O. G. 403 ; 7 Reporter 552.
Hoe *v.* Cottrell, March, 1880. 17 Blatch. 546 ; 1 Fed. Rep. 603 ;
5 Ban. & Ard. 256.
Ex parte Fisher, April, 1881. 1 Mackey, 212 ; 20 O. G. 957.
Flower *v.* Rayner, 1881. 5 Fed. Rep. 793.
Kappes *v.* Hartung, February, 1885. 23 Blatch. 154 ; 23 Fed.
Rep. 187.
Leonard *v.* Lovell, December, 1886. 29 Fed. Rep. 310.

IN DECISIONS OF COMMISSIONER OF PATENTS IN :

Cutting, January 5, 1877. 11 O. G. 110.
Chambers & Mendham *v.* Tucker, March, 1877. 11 O. G. 1009.

Syllabus.

DIODATE CLARK, JOSIAH C. GRAHAM AND JOHN B. WHITE, PLAINTIFFS, v. JOHN G. BOUSFIELD AND JOHN POOLE.*

10 Wall. 133-144. Dec. Term, 1869.

[Bk. 19, L. ed. 862; 2 Whit. 267.]

Argued April 1, 1870. Decided April 11, 1870.

Particular patent construed to cover machine and design. Design. Act 1861.

1. Where letters patent No. 45,590, R. & A. Cross, December 27, 1864, Pail Graining Machine, claimed "arranging the elastic material aforesaid" (having a design thereon, which is printed upon the pail) "whether curved or rectangular in form, in a series of distinct staves or designs substantially as and for the purpose shown and set forth," *held* that it was for a part of the machine, and patentable other than as a design under Act 1861, sec. 11, and that the design was but incidental and as such had no other protection than that which the patent secured to the inventor of the machine, and the right to its use went with the machine. (p. 256.)
2. An arranged figure in an elastic bed, by which it is printed onto pails is not the design protected by Act 1861, but it is the design transferred to the pail or ware which is protected thereby. (p. 256.)

Certificate of division of opinion between the judges of the Circuit Court of the United States for the Northern District of Ohio.

The history and facts of the case fully appear in the opinion.

The specifications and drawing of the letters patent referred to in the opinion of the court are as follows:

*See Explanation of Notes, page III.

Statement of the case.

J. R. CROSS AND A. J. CROSS, OF CHICAGO,
ILLINOIS.

APPARATUS FOR GRAINING PAILS.

Specification forming part of Letters Patent No. 45,590, dated
December 27, 1864.

To all whom it may concern :

Be it known that we, J. R. Cross and A. J. Cross, of Chicago, in the county of Cook, and State of Illinois, have invented a new and useful Improvement in Machines for Graining Pails, and other Analogous Uses; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings and the letters and figures marked thereon, forming part of this specification.

In the said drawings, which are hereunto attached, Fig. 1 represents a perspective view of our invention; and Fig. 2 is a central sectional view of the pail or other vessel to be grained, with the devices thereunto attached.

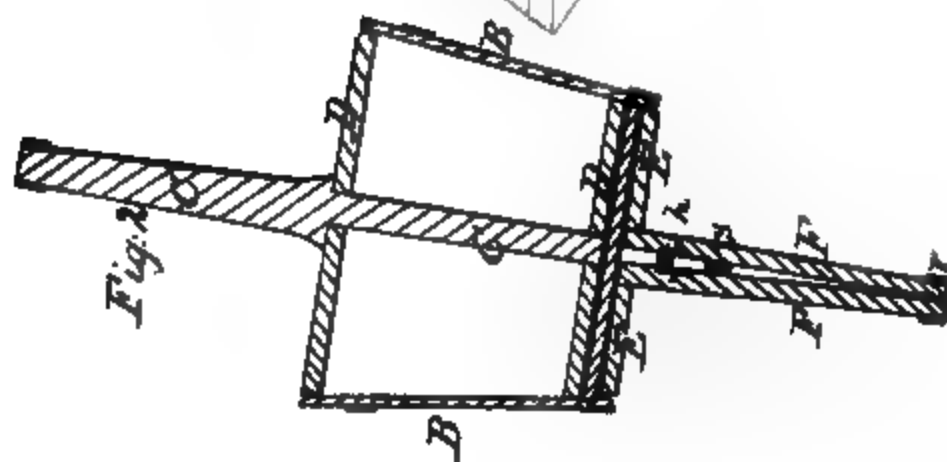
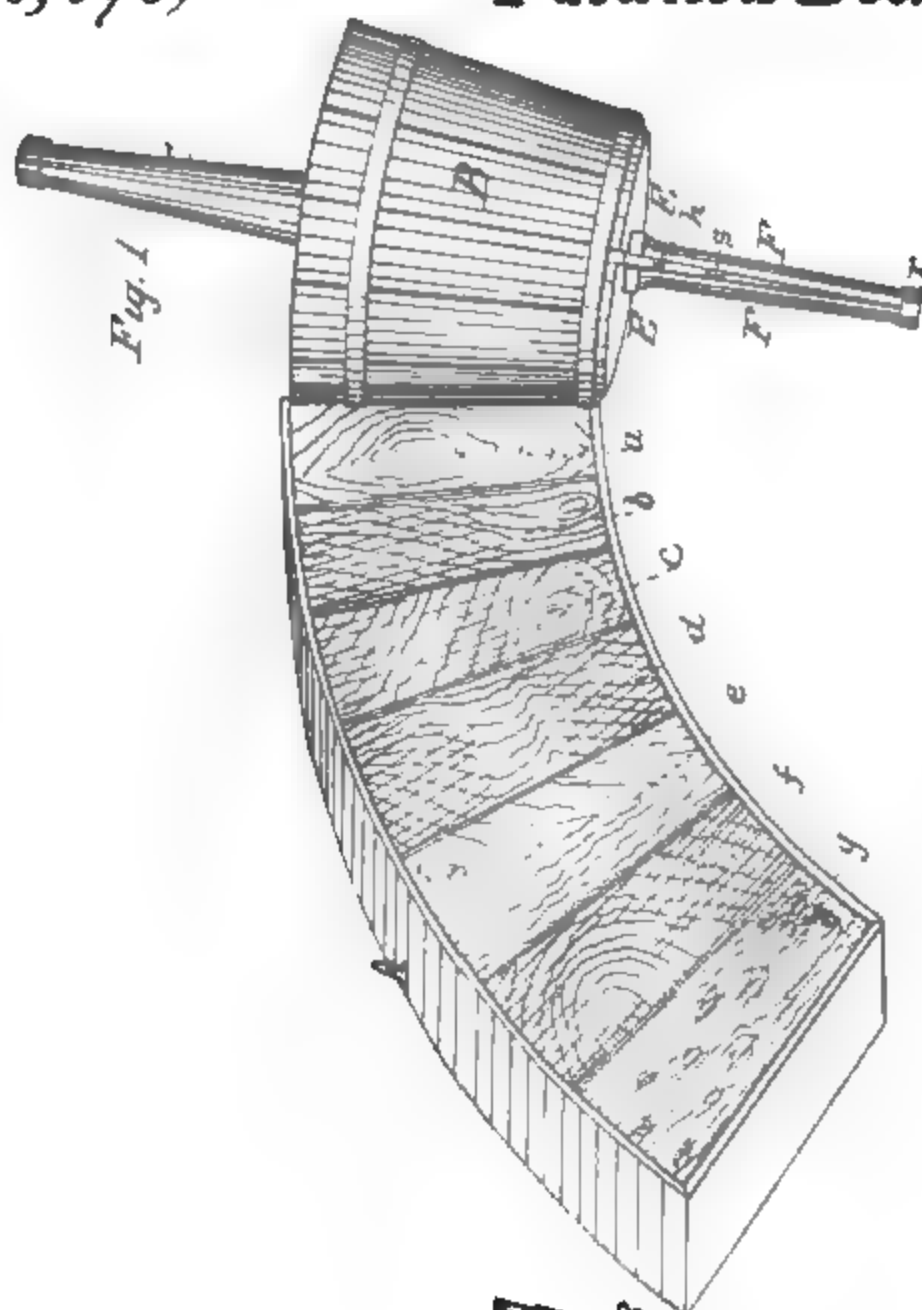
The nature of our invention consists in constructing the elastic bed containing the impression or impressions of the device to be grained upon the pail in separate panels, each panel to be of different designs, so that by moving the pail over the same the various designs will be stamped upon the pail, and thus producing a pail whose staves are painted in imitation of different kinds of woods.

To enable those skilled in the art fully to understand how to construct and use our invention, we will proceed to describe the same with particularity, reference being made to the aforesaid drawings.

A represents the box or bed into which the elastic material impressed with the required designs to be grained upon the pails is placed or framed, and may be constructed of wood or iron or any other material suitable for the purpose.

The elastic bed upon which the desired impression is

J.R. & A.J. Cross,
Apparatus for Graining Pails,
N^o 45,590, *Patented Dec. 27, 1864.*



Witnesses
L. L. Cotton
W. E. Mann

Inventor
J. R. Cross
A. J. Cross

Statement of the case.

made presents a plane surface, whose area is included between the arcs of two concentric circles described upon radii, whose difference in length is equal to the height of the pail or other vessel to be grained, the length of the exterior arc being equal to the circumference of the top or larger end of the pail, and the length of the interior arc being equal to the circumference of the bottom or smaller end thereof, and the corresponding ends of the said two arcs being joined by two straight lines. The curvatures of said arcs must be adapted to the different sizes of pails to be grained, and also to the different inclinations of their sides from the vertical, so that when the pail is adjusted properly upon said bed and rolled upon and over it the upper or larger end shall follow the outer curve, and the lower or smaller end shall follow the interior or smaller curve, with exactness and precision.

The elastic bed may present one continuous or uniform design, if desired; or it may be arranged in blocks or staves, each of different designs, as shown in Fig. 1 by the letters *a b c d e f g*, so that the pail or vessel grained thereon or thereby, shall present the appearance of being constructed of different kinds or species of woods, as rose-wood, oak, walnut, and others.

The elastic bed may be constructed of any suitable incompressible material, as rubber or leather, but I consider the best material for the purpose to be a compound of glue and molasses, which is used for printers' rollers.

The bed may also be constructed of separate pieces or blocks, as shown, or the material may be a single united mass, impressed by different designs arranged in staves, so as to produce the same effect as when constructed in separate blocks.

The same material may also be employed to imitate marbles and other ornamental stones. It may also be used for graining other wares, as for japanning and other similar purposes, and also for graining broom-handles. It may be observed, however, that when the articles to be grained

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have upright or parallel sides the bed may be of rectangular form instead of the form shown.

C, D, E, and F represent the handles and other devices for affixing or attaching said handles C and F to the pails to facilitate the operation of graining.

D D are two circular plates fitting closely into the pail, as shown, which are rigidly attached to the handle C, and when introduced, as shown, into the pail hold the same firmly.

E E represent a circular plate divided in two parts, to each of which is rigidly attached the handles F F as shown. The said handles F F are connected by a hinge at *h*, and between them then is arranged a spring, *s*, to throw said handles apart when not confined by the ring *r* upon the ends of the same.

Having described the construction and nature of our invention, we will now describe the mode of operation and application of the same.

The ring *r* being removed from the end of the handle F F, the opposite ends thereof approach each other, being forced together by the operation of the spring *s* and hinge *h*, and thus the two parts of the plate E E are drawn together, diminishing its size, so that it can be readily introduced within the chine of the bottom of the pail, when by pressing the ends of F F together and replacing the ring *r* the plate E E is expanded and adjusted within said chine, so as firmly to fasten the handle F to the pail. The handle C is then readily inserted and adjusted within the pail, when the operator grasps the handles C F and adjusts the pail upon the elastic bed, as shown, the paint or coloring-matter having been previously applied thereto by means of a roller or in any other suitable and convenient manner. The pail is then readily rolled across the bed, and is by this simple operation grained in the most beautiful manner in staves in imitation of various woods or marbles, as before described, when the handles are detached and applied to another pail, and the operation repeated.

Argument of counsel.

Instead of rolling the pail over said bed, the pail may be suspended upon the handles or their removable equivalents, and the elastic bed itself moved beneath the pail in a suitably-arranged groove or track, producing the same result; or the application may be made in any other convenient and practical manner.

Having described the nature, construction, and operation of our machine for graining pails and other analogous uses, we will now specify what we claim as new therein and desire to secure by Letters Patent.

1. Constructing the bed of elastic material used in graining-machines in the form herein shown, substantially as and for the purposes specified.

2. Arranging the elastic material aforesaid, whether curved or rectangular in form, in a series of distinct staves or designs, substantially as and for the purposes herein shown and set forth.

3. The arrangement of the expansible plate E E and the handles F F, provided with the hinge *h* and spring *s*, as and for the purposes described.

4. In combination with the last foregoing, the employment of the handle C and plates D D, as and for the purposes shown and described.

J. R. CROSS,
A. J. CROSS.

Witnesses:

L. L. COBURN,
W. E. MARRS.

Messrs. A. G. Riddle and Jason Canfield, for plaintiffs.

The first question which arises is this:

Whether the second claim is, in substance, a claim for a design, instead of a claim for a principle, in an apparatus for graining pails, and other analogous uses.

If it is a design, it should have been patented under section 11 of an act of March 2, 1861 (12 Stat. at L. 246), enti-

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tled, "An act in addition to an act to promote the progress of the useful arts."

If the second claim is for a principle, in an apparatus for graining pails and other analogous uses, then it does not come under said section 11 of the act of 1861, but under the act of July 4, 1836, known as "An act to promote the progress of the useful arts, and to repeal all acts and parts of acts heretofore made for that purpose."

5 Stat. at L. 117; *Corning v. Burden*, 15 How. 268 [6 Am. & Eng. 69].

Now, in this case our second claim in our patent is for the machine which produces the effect, and not for the effect itself; in other words, it is for a machine which grains a pail in staves, which staves represent different kinds of wood, and not for the impressions put upon the pails representing staves of different kinds of wood.

The means of producing this effect on the pails is our machine, which comes under the act of 1836; the effect as produced is a design, which comes under the 11th section of the act of 1861, for which we claim nothing.

In *Whittemore v. Cutter*, 1 Gall., p. 480, Judge Story has defined the principle of the machine which applies to the act of 1836.

2. Whether said letters patent were not void for ambiguity.

On this subject we refer the court to the decision of Judge Story in the case of *Ames v. Howard*, 1 Sumn. 485; *Ryan v. Goodwin*, 3 Sumn. 520.

As to what is required by the act 1836 on this point, see *Hogg v. Emerson*, 6 How. 484 [5 Am. & Eng. 1].

Whether there is ambiguity in the description, is a question for the jury, under the testimony of experts. *Washburn v. Gould*, 3 Story, 138.

The court, in construing this patent, should look at it in the light of the law as laid down by Judge Story in the case of *Ames v. Howard*, before referred to, in which he says:

Argument of counsel.

“Patents for inventions are not to be treated as mere monopolies, odious in the eyes of the law and, therefore, not to be favored; nor are they to be construed with the utmost rigor as *strictissimi juris*. * * * * * The object is to ascertain what, from the fair sense of the words of the specification, is the nature and extent of the invention claimed by the party; and when the nature and extent of that claim are apparent, not to fritter away his rights upon formal or subtile objections of a purely technical character.”

But in the language of the same learned judge (*Ryan v. Goodwin*, 3 Sumn. 520), to give a liberal construction to the language of all patents and specifications, *ut res magis valeat quam pereat*, so as to protect and not to destroy the rights of real inventors.

Messrs. George Willy, John E. Cary and H. S. Sherman, for defendants:

1. The second claim is not void for ambiguity; is a claim for a design merely and only patentable as such, under section 11 of the Act referred to in the question.

If the first claim is good as a claim for a device of a given form, there is no necessity for the second claim, unless it was intended to cover the stave design as such; for the first claim covered the construction of the bed as to form, and whether constructed of separate blocks or one entire block.

It cannot be presumed that the second claim was intended to again cover the use of distinct blocks; for the subdividing of a mass or plate into parts which were still to be used together as a mass or as one plate, would be obviously void for want of invention.

The terms “in a series of distinct staves or designs,” are evidently used synonymously or as convertible terms in this relation. If so, they mean stave-shaped designs, or designs as “set forth.” If not, then the claim would be void for ambiguity, or for combining two classes of sub-

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jects in one claim. But in either case it embraces a claim for a design which destroys the patent for incongruity, or rather by destroying its unity.

Curt. Pat., secs. 107, 110; 1 Mas. 475.

2. The second question presented is, "Whether said letters patent were not void for ambiguity in the specification."

That the first claim, taken in connection with the description, is uncertain as to whether the curved or rectangular form is intended or both. Both forms are spoken of in the specification, and both, and perhaps other forms, required by the subjects enumerated to be grained.

As to what is to be embraced in the term "for the purposes specified," whether simply the graining of pails, requiring a curved form or bed, or other subjects requiring or admitting a rectangular bed.

Ambiguity is not distinguishing by definite terms of description and exclusion the extent of the ground covered by the patent, in order that the public may know just what is claimed and what is not claimed.

Mr. Justice NELSON delivered the opinion of the court.

This is a certificate of division of opinion between the Judges of the Circuit Court of the United States for the Northern District of Ohio.

The suit was brought by the plaintiffs, assignees of letters patent to J. R. and A. J. Cross, dated 27th December, 1864, against the defendants, for an infringement.

The patent is for a new and useful improvement in machines for graining pails, and other analogous uses. The nature of it consists in constructing an elastic bed containing the impression or impressions of the device to be engraved upon the pail in separate panels, each panel to be of different design, so that by moving the pail over the same, the various designs will be stamped upon the pail, thus producing a pail whose staves are painted in imita-

Omitted in Wall.

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tion of different kinds of wood. The patentees then described the instrument or machine, which is a box into which the elastic material, with the required designs to be grained upon the pail, is placed, and may be constructed of wood or iron or any other suitable material, and so shaped (describing the shape minutely) that when the pail is adjusted properly upon the bed, and rolled upon and over it, the upper or larger end of the pail shall follow the outer curve of the bed, and the lower or smaller shall follow the interior or smaller curve, with exactness and precision. The elastic bed may present one continuous or uniform design if desired, or it may be arranged in blocks or staves, each of different designs, so that the pail grained shall present the appearance of being constructed of different kinds of wood. The elastic bed may be composed of any suitable impressible material, as rubber or leather, but a compound of glue and molasses, such as is used for printers' rollers, is preferred. The patentees then describe the contrivances for working the elastic bed in connection with the pail, so as to effect the graining of the latter. By this contrivance the pail is readily rolled by hand across the bed, leaving upon it the desired design or figure; or the pail may be suspended on handles and the elastic bed itself moved beneath it, in a suitably arranged groove or track, producing the same result. The patentees then set forth their claims, the first two of which only are material: First. "We claim constructing the bed of elastic material used in graining machines, in the form herein shown, substantially as and for the purposes specified." Second. "We claim arranging the elastic material aforesaid, whether curved or rectangular in form, in a series of distinct staves or designs, substantially as and for the purposes herein shown and set forth."

The learned judges of the circuit divided upon the question whether this second claim in said letters patent was for anything patentable other than under section 11 of the

Omitted in Wall.

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act of March 2, 1861, entitled "An act in addition to an act to promote the progress of the useful arts;" if not, whether the patent was not void. This 11th section secures the inventor or producer of any original design, etc.; or any new and original impression or ornament to be placed on any article of manufacture, etc., or any new and useful pattern or print or picture, to be either worked on, or printed or painted on any article of manufacture; or any new and original shape or configuration of any article of manufacture not known or used before, etc., a patent for the exclusive property therein. 12 U. St. p. 246.

(a) It will be seen (b) if this second claim is patentable under this 11th section, it must be a claim for an original design, or impression, or ornament, or pattern, or picture, or the like, wholly irrespective of the means of producing it.

The patent is simply for the design, etc., itself.

In order to understand the full meaning of this second claim, it will be useful to settle the meaning of the first, as the two are intimately connected.

The first, as we have seen, is for constructing the bed for the elastic material used in graining machines in the form shown and for the purposes specified. The patentees describe it as a box or bed, and which may be constructed of wood or iron, or any other suitable material. This box or bed is made for the purpose of holding the elastic material, whether of rubber or leather, or the compound of glue and molasses, which is preferred. Now, the second claim is for arranging the elastic material, when placed in this box or bed, whether curved or rectangular in form, "*in a series of distinct staves or designs*," for the purpose specified; that is, for the purpose of graining pails in the variety of colors or figures described. The elastic bed may be arranged, as is stated in the specification, so as to present

10 Wall. 139.

(a) Wallace, begins opinion here.

(b) Wallace, inserts "by reference to the eleventh section of the act of 1861, that."

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one continuous or uniform design, or it may be arranged in blocks or staves, each of different designs, so that the vessel shall present the appearance of different kinds of wood, as rosewood, oak, walnut and others. It may also be constructed of separate pieces or blocks, as shown in the drawing, or the material may be a single united mass, impressed by different designs arranged in staves, so as to produce the same effect as when constructed in separate blocks. The two claims, as we see, are closely connected, and each essential to the complete construction of the instrument or apparatus, which, when put into practical operation by the contrivances pointed out in the specification, can accomplish the desired result, which result is the graining of the exterior body of the pail with a variety of colors and figures.

The learned counsel for the defendants below insists that this second claim is only an arrangement of designs and, in a limited sense, he is no doubt right, but in its connection with the first claim, and with the machine for transferring the design to pails, it is more ; it is a part of the machine or instrument, and an indispensable part ; it is the elastic bed of rubber, or of leather, or compound of glue and molasses, of any arranged figure or design, that constitutes an element in the machine, and which, with the curved box and contrivances for working the instrument, produces the desired result. The figure or design is but incidental, and, as such, has no other protection than that which the patent secures to the inventor of the machine. The right to the use of the machine carries along with it the right to use the designs.

The arranged figure in the elastic bed is not the one protected by the 11th section of the act of 1861 ; that is, the one which is transferred to the pail or wares, where its beauty is first visible to the eye. While it remains in the elastic material it exhibits no more beauty than if engraved on stone or metal.

Notes and Citations.

It may be that the inventors of the machine for impressing figures or designs upon pails or other wares would not be protected from using figures or designs the right of property in which had been secured to the original inventor under this 11th section, but they may clearly use any and all not thus protected. The machine in question is invented for reducing to practical use these figures and designs, and will make them profitable to the original inventors or owners of them, if they choose to employ it.

We are of opinion that the first questions should be answered in the affirmative and the second in the negative.

10 Wall. 140-141.

Notes:

Joinder of invention:

- Evans v. Eaton, 3 Wheat. 454 [4 Am. & Eng. 16].
 - Hogg v. Emerson, 6 How. 437 [5 Am. & Eng. 1].
 - Hogg v. Emerson, 11 How. 587 [5 Am. & Eng. 279].
 - Bennett v. Fowler, 8 Wall. 445. [p. 124 ante].
 - Garratt v. Seibert, Bk. 21, L. ed. 956.
 - Gill v. Wells, 22 Wall. 124.
 - Bates v. Coe, 98 U. S. 31.
 - Parks v. Booth, 102 U. S. 96.
 - Smith & Griggs Mfg. Co. v. Sprague, 123 U. S. 149.
 - Telephone Cases, 126 U. S. 1.
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Patent in Suit:

No. 45,590. Cross, R. & A. December 27, 1864. Pail
raining Machine.

Notes and Citations.

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IN CIRCUIT COURTS IN:

Dederick v. Cassell, October, 1881. 9 Fed. Rep. 306; 20 O. G. 1233; 14 Phila. R. 503; 38 Leg. Int. 414.
Dryfoos v. Friedman, January, 1884. 18 Fed. Rep. 824.

IN TEXT-BOOKS:

**Clark v. Bousfield, 10 Wall. 133.
2 Abb. Pat. Law, 1886, p. 485.
Curtis on Pats., 4th ed. § 249 c.**

Syllabus.

THE PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD COMPANY, PLAINTIFFS IN ERROR, v. ISAAC R. TRIMBLE AND ANN C. TRIMBLE, HIS WIFE, AND GEORGINA PRESSTMAN.*

10 Wall., 367-383. Dec. Term, 1870.

[Bk. 19, L. ed. 948; 2 Whit. 274.]

Argued November 28, 1870. Decided December 12, 1870.

Assignment. Receiver. Construction of assignment. Assignment of "invention" of "extended term." Title.

1. Where there was an assignment of a patent by a receiver in proceedings in which there was no issuing of any process against the defendant, no steps were taken to bring him before the court, and in which he did not appear, the assignment was held a nullity. (p. 270.)
2. Where there is doubt as to the proper construction of an instrument, that put upon it by the parties is entitled to great consideration. But where its meaning is clear in the eye of the law, the error of the parties cannot control its effects. (p. 270.)
3. Where the assignment was of "all the right, title, and interest which I have in said invention, as secured to me by letters patent, and also all right, title and interest which may be secured to me for alterations and improvements on the same from time to time," "the same to be held and enjoyed * * * to the full end of the term for which said letters patent are or may be granted," it was construed to include the entire inventions and all alterations and improvements, and all patents relating thereto, whensoever issued, to the extent of the territory specified. (p. 271.)
4. Such an assignment is of the extended term (act 1836, secs. 11 and 18), and though made before the grant of the extension, is valid in view of *Gayler v. Wilder*, 10 How. 477 [5 Am. & Eng. 188], which is reaffirmed. (p. 272.)

*See Explanation of Notes, page III.

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5. Where a written agreement grants an interest in a patent, in consideration of payments and promises by grantee, and grantee never makes the payments, and by common consent of grantor and grantee, the agreement never goes into operation in any way, because of grantee's inability to comply therewith, and grantee never claims any rights under it, but always recognizes his grantor's exclusive right, and acted as his agent, such a contract passes no title. (p. 275.)

[Citations in opinion of the court:]

Gayler v. Wilder, 10 How. 477 [5 Am. & Eng. 188]. pp. 272, 274.

Wilson v. Rousseau, 4 How. 646 [4 Am. & Eng. 436]. p. 274.

Maynard v. Maynard, 10 Mass. 456. p. 276.

Ford v. Stuart, 19 Johns. 342. p. 276.

Baker v. Bramin, 6 Hill, 48. p. 276.

Hartshorn v. Day, 19 How. 211 [6 Am. & Eng. 330]. p. 276.

Emerson v. Slater, 22 How. 28. p. 276.

In error to the Circuit Court of the United States for the District of Maryland.

Suit was brought in the court below by the defendants in error as assignees, to recover damages for an alleged infringement of a certain patent for truss frames of bridges. The patent was obtained in 1840 by Wm. Howe. In 1844 he assigned to Isaac R. Trimble in these words: "All the right, title and interest which I have in said invention as secured to me by said letters patent; and also all right, title and interest which may be secured to me for alterations and improvements in the same from time to time." "The same to be held and enjoyed by the said I. R. Trimble, etc., to the full end of the term for which said letters patent are or may be granted, as fully and entirely as the same would have been held and enjoyed by me, had this assignment and sale not been made." Howe having died, his administrator, Joseph Stone, September 15, 1854, in order to "secure to I. R. Trimble more perfectly his legal rights and tend to a more speedy adjustment of any disputed claim," assigned to Trimble the same interest in the patent of 1846 which he held in the

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others. The assignment recites that the alterations and improvements secured by the patent of 1846 already belong to Trimble, "who has used and paid for the same since the year 1846, as understood at the time." On the application of the same administrator, Stone, the patent of 1846 was extended for seven years from August 28, 1860. May 30, 1861, Trimble executed a deed of "all his property and estate, whatsoever and wheresoever, of every kind and description," to the defendants in error, Ann C. Trimble, his wife, and Georgiana Presstman, in trust: 1. To pay his debts; 2. For the benefit of Mrs. Trimble, and 3. To convey to such persons as Mrs. Trimble might designate, by deed or will. This deed was recorded July 26, 1861, in the proper office in Baltimore City, but was not recorded in the Patent Office until March 4, 1868, a short time before this suit was brought. The right of the plaintiffs to recover rested, therefore, upon the ground that the assignment from Howe to Trimble passed Howe's interest in the extension of the patent of 1846, the alleged infringement having taken place pending such extension.

The plaintiff in error (defendant below) gave in evidence (subject to exception) an assignment dated April 1, 1861, from Howe's administrator, Joseph Stone, to a certain Daniel Stone, of Philadelphia, of all the administrator's interest in the patent of 1846, and its extension for the States above mentioned. When this assignment was recorded does not appear. This was followed by proof of an agreement between Trimble and Daniel Stone, dated September 30, 1846, and recorded July 27, 1864. Stone obligates himself to pay Trimble one-half of the consideration money remaining due from Trimble to William Howe, for the purchase of his patents, and Trimble binds himself, in consideration thereof, to sell and transfer, and "doth hereby sell and transfer" to Stone, one equal half part of his interest in these patents. The agreement further witnesses that the parties have joined themselves as partners to carry on

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the business of bridge builders, "under, and in accordance with," the Howe patent rights and privileges, etc.

Next followed (subject to the same exception) an assignment from a certain John E. Shaw, receiver, to Aaron E. Burton, of all the interest of Daniel Stone and Trimble, as partners in the Howe patents. This assignment bears date June 11, 1864, and was recorded July 27, 1864, being the same day on which the partnership articles above referred to were recorded, as has been stated.

The plaintiff in error then produced an assignment from Joseph Stone, administrator of Daniel Stone, to the same Aaron E. Burton, dated March 6, 1865, in which he transfers to the assignees all the interest of the deceased in the Howe patents and extension. This assignment was not recorded until May 29, 1868, after the institution of this action. In order to sustain the assignment from Shaw as receiver, already referred to, the plaintiff in error then gave in evidence (subject to the same exception) a transcript of the record in an equity proceeding in the Supreme Court of Pennsylvania, instituted March 10, 1864, by Joseph Stone, administrator of Daniel Stone, against Trimble, as "formerly of said city of Philadelphia." It alleges a partnership between Daniel Stone and Trimble, etc. It then charges that Trimble, "On or about the 29th day of April, 1861, absconded to parts unknown, abandoning the said copartnership business, and took up arms against the government," etc. The bill then prays an account, injunction, receiver, etc., and a subpoena against Trimble. The court, Judge Agnew, March 26, 1864, sixteen days after the filing of the bill, appointed Mr. Shaw receiver, and ordered him to sell the partnership property. He filed an inventory, in which the Howe patent, as extended, was set down as the only assets of the partnership, and a sale of it for \$300 was reported. He then filed a petition for the confirmation of the sale of the patent and extension to Burton and, June 11, 1864, said sale was absolutely confirmed, and the receiver directed to execute the assignment to Burton of the

Argument of counsel.

Howe patent, "to the full end of the time for which said letters patent have been extended."

The case is further stated by the court.

Messrs. Wm. Schley and Thomas Donaldson, for plaintiffs in error:

The plaintiffs below did not adduce any evidence of title in the extended term of the patent. The alleged infringements occurred during the said extended term. There is nothing in the agreement, nor in the assignment above referred to, which would justify the conclusion that the parties had in contemplation the possible extension of the patents, or any of them. The defendant's 2d and 8th prayers ought to have been granted.

Wilson v. Rousseau, 4 How. 682 [4 Am. & Eng. 436]; Wilson v. Simpson, 9 How. 109 [5 Am. & Eng. 97]; Bloomer v. McQuewan, 14 How. 539 [5 Am. & Eng. 434]; Hartshorn v. Day, 19 How. 211 [6 Am. & Eng. 330]; Chaffee v. Belting Co., 22 How. 223 [7 Am. & Eng. 60]; Day v. Rubber Co., 3 Blatchf. 491, 504.

Even if there had been, in the said agreement or said assignment, or in both, a covenant providing for an interest in any extension, it would only, as respects third parties, have vested a mere equitable right. By estoppel, the subsequently accruing right feeding the estoppel, it might, in a suit *inter partes*, even at law, have clothed the covenantee with a legal right. But, however this might be in such case, it could not create a legal right to be enforced by the covenantee or his assigns, in an action at law against a stranger to the covenant.

Hartshorn v. Day, 19 How. 220 [6 Am. & Eng. 330].

But even if Trimble had an inchoate right in the possible extension of the patent of 1846, his agreement with Daniel Stone passed to Daniel Stone one-half of said inchoate right; and of course, the plaintiffs, assuming said agreement to be operative, would not have such exclusive title as would enable them to maintain this suit.

Argument of counsel.

The evidence of Mr. Trimble, as a witness, is not competent legal evidence to destroy said agreement, or to revest in him, said Trimble, the moiety which he had transferred to said Stone. An assignment of a legal interest in a patent, or of an interest therein, can only be made by writing. Even if the facts stated by witness would avail in equity, as a ground for a decree setting aside the deed, still, in a suit at law, they cannot annul the agreement.

R. R. Co. v. Stimpson, 14 Pet. 461 [4 Am. & Eng. 324]; Iron & Nail Fact. v. Corning, 1 Blatchf. 472.

Without entering into any discussion of the merits of the suit, in the Supreme Court of Pennsylvania, it was shown that it was still pending; and that said court, by a receiver, had taken the possession of the interest of said Trimble in said patent right, long before the commencement of this suit.

Coming into question, collaterally, in this suit, comity requires that the action of said court should not be declared a mere nullity in law. It was a proceeding in a court of equity, and partnership matters are properly cognizable in equity. It was a case in a matter within its jurisdiction. The appointment of a receiver is an ordinary exercise of power, for the purpose of preserving property, pending litigation; and it is the province of every court having possession of a cause, to decide for itself, whether, upon the state of case before it, it is expected to exercise the power. The averments of the bill presented a strong case for prompt interference.

Messrs. B. C. Presstman and S. T. Wallis, for defendants in error:

The assignment of August 3, 1840, from Howe to Trimble, of itself, and *a fortiori* with the confirmatory assignment from Howe's administrator on September 18, 1854, passed to Trimble a legal and exclusive right within the territory named, to the patents original and extended,

Argument of counsel.

which right passed from Trimble to his grantees by his deed of May 3, 1861.

Wilson v. Rousseau, 4 How. 646 [4 Am. & Eng. 436]; Gaylor v. Wilder, 10 How. 493 [5 Am. & Eng. 188]; Harts-horn v. Day, 19 How. 220 [6 Am. & Eng. 330]; Gibson v. Cooke, 2 Blatchf. 149; Phelps v. Comstock, 4 McLean, 355; Case v. Redfield, 4 McLean, 526; Clum v. Brewer, 2 Curt. 506-508; Pitts v. Hall, 3 Blatchf. 201; Hodge v. R. R. Co., 6 Blatchf. 89.

See, also, MSS. case of Stone v. Piper, decided by the late Mr. Justice Grier, in Philadelphia, in which the identical question here in dispute was the sole point of controversy, and was determined in favor of the right of Trimble to the benefit of the extension, and against the right of Daniel Stone, under the assignment of Howe's administrator.

The agreement between Trimble and Daniel Stone, even if it be taken to contain the words of absolute transfer, which are not in the copy filed with the Pennsylvania bill in equity, did not pass any title which precluded the recovery of the plaintiffs under the facts proven in rebutter, and put before the jury by the prayer of the defendants in error, under which the verdict was found. The agreement was a private paper, *inter partes* only, and unrecorded during the lifetime of Stone and the term of the proposed partnership. The stipulated transfer of one-half of the patent right was purely incidental to the partnership, which never went into operation, and the paper itself remained on the proof, in Stone's hands, a confessed escrow, under which he claimed nothing.

The whole proceeding in Pennsylvania, and the receiver's deed executed under it, are mere nullities, of no effect and entitled to no respect. Not only was the equity suit a sham on its face, for reasons already assigned, but no subpœna was issued; no publication made; no notice whatever given or pretended to be given to the defendant. It was founded, moreover, on the false and fraudulent al-

Argument of counsel.

legation that Trimble was "formerly of Philadelphia;" while it is distinctly proven in this case, that he never was at any time a citizen or resident of Pennsylvania. Neither had the patent right any locality in Pennsylvania, to give a jurisdiction from its *situs*, which did not exist over the person of the defendant. It was a mere personal right, and even as such it was specifically exercisable in other States as well as in Pennsylvania.

The entire proceeding, then, is not only *ex parte* but *coram non judice* as to Trimble, whose assignees and co-plaintiffs were not even made parties.

D'Arcy v. Ketcham, 11 How. 165; Harris v. Hardeman, 14 How. 339; McGoon v. Scales, 9 Wall. 23; Bischoff v. Wethered, 9 Wall. 812 [p. 213 *ante*].

While it is not denied that an assignee, in order to recover, where defense is properly taken, must have an exclusive right; yet, if the plaintiff has such exclusive right jointly with another, the non-joinder of that other must be pleaded in abatement, as the omission of a proper co-plaintiff is required to be, on familiar principles of pleading, in all actions purely *ex delicto*.

The proceeding in the Supreme Court of Pennsylvania concedes throughout that Trimble's interest covered the extended patent. This admission is flatly made by Joseph Stone (administrator of Daniel Stone), the complainant. It is part of the court's decree prescribing the form of the receiver's deed, and is set forth in that deed as accepted and recorded by Burton, the purchaser. And it could not have been otherwise on the very showing of the bill, for not only did the complainant aver the non-user of the patent as a ground of irreparable injury (which, of course, could refer only to the extended patent, the original one having expired), but he charged that the partnership had gone on until Trimble left it, or about April 29, 1861, which was eight months after the extension; the sole and exclusive business of the firm, meanwhile, being to build bridges, "Under and in accordance with the rights and privileges

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acquired by Trimble from Howe," and none other. Nor can it be tolerated that the plaintiff in error, while relying upon the proceeding in which Joseph Stone, as administrator of Daniel Stone, thus claims the extension to have been in Trimble and Daniel Stone, as partners, by virtue of their partnership agreement and Trimble's original rights, should still be permitted to claim that the said Joseph Stone, as administrator of Howe, had previously conveyed the extension to the same Daniel Stone, April 1, 1861, and had afterwards vested it in Burton, the vendee of the receiver, by the deed of March 6, 1865, executed by him, the same Joseph, in his capacity of administrator of Daniel Stone, and by virtue of his own deed to Daniel, as aforesaid.

All these pretended outstanding rights are set up by the plaintiff in error, a conceded and sheer wrong-doer, to protect it from the penalties of a confessed infringement, for which no license is claimed to have been given it by the parties on whose rights it relies. It certainly is entitled to no favorable constructions.

Mr. Justice SWAYNE delivered the opinion of the court.

This is a writ of error to the Circuit Court of the United States for the District of Maryland.

The controversy between the parties in this court is confined to questions relating to the title of the defendants in error under the extended patent of August 23, 1860, alleged to have been infringed by the plaintiffs in error. The instruction given, and those refused by the court below, which are brought under review, must be examined in the light of the facts which the bill of exceptions discloses. Before proceeding to consider the main questions in the case, we deem it proper to dispose of others arising upon the record in regard to which we have found no difficulty and entertain no doubt.

The deed of Isaac R. Trimble of the 30th of May, 1861,

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conveyed all his rights under the patent, whatever they may have been, to the grantees in that instrument. If his title was sufficient, theirs is so. This was not controverted by the counsel for the plaintiffs in error, and needs no further remark.

The assignment of the 11th of June, 1864, to Aaron E. Burton, made John E. Shaw, as receiver appointed in the case in equity in the Supreme Court of Pennsylvania, wherein Joseph Stone, administrator of Daniel Stone, was complainant, and Isaac R. Trimble defendant, was a nullity, and as such may be laid out of view. Looking into the record we find no evidence of the issuing of any process against Trimble, or that he was notified of the pendency of the suit by publication or otherwise. It does not appear that there was any step whatever taken to bring him before the court. The entire proceeding, as disclosed, was *coram non judice* and void. It may be added that Trimble's deed to his co-plaintiffs was prior in date to the filing of the bill, and that the title of the grantees in that deed could not be affected by a proceeding to which they were not parties.

If Trimble, at the date of that deed, held the title under the extended patent, which the defendants in error insist he had, the deed of confirmation to him from Howe's administrator, of the 18th of September, 1854, touching the patent of 1846, extended by the one in question, was inoperative and useless. It was referred to in the argument, as showing the construction put by the parties upon the deed of Howe to Trimble of the 9th of July, 1844. Where there is doubt as to the proper construction of an instrument, this feature of the case is entitled to great consideration. But where its meaning is clear in the eye of the law, the error of the parties cannot control its effect. In this view of the subject, conceding that Trimble took this conveyance, *not* out of abundant caution and to solve in his favor a doubt which might otherwise possibly arise against him, *but* be-

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cause he deemed it necessary to give him a title which he did not already possess, his legal rights in this controversy are just what they would have been if that instrument had not been executed.

If the construction given to the deed of Howe by the counsel for the defendants in error be correct, and no part of the title vested in Trimble by that deed passed to Daniel Stone by the agreement of the 30th of September, 1846, between him and Trimble, as the counsel for the defendants in error insist, there was nothing for the deed of Howe's administrator to Stone of the 1st of April, 1861, nor for the deed of Stone's administrator of March 6, 1865, to Burton, to operate upon, and both of them were also without effect upon the rights of the parties in this litigation.

This brings us to the examination of the deed of Howe to Trimble, and of the agreement between Trimble and Stone. They are the hinges upon which the controversy turns. The stress of the argument on both sides was properly confined to these subjects in their several aspects of fact and of law.

The deed from Howe recites that he had obtained from the United States two patents for new and useful improvements in the construction of truss bridges and other structures, one dated on the 10th of July, the other on the 3d of August in the year, 1840. The instrument is a deed poll. After setting out the consideration, it proceeds as follows: "I have assigned, sold, and set over, and do hereby assign, sell and set over, all the right, title and interest which I have *in said invention*, as secured to me by said letters patent, *and also all right, title and interest* which may be secured to me for alterations and improvements on the same *from time to time*, for, to and in the following States, viz.," etc., * * * "the same to be held and enjoyed by the said I. R. Trimble for his own use and behoof, and for the use and behoof of his legal representatives to the full end of the term for which said letters patent *are or may be*

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granted, as fully and entirely as the same would have been held and enjoyed by me had this assignment and sale not have been made." A careful analysis of these provisions eliminates the following results: Howe assigns to Trimble all his title and interest in the inventions secured to him by the two patents mentioned, in respect to the territory specified, and also all the right and title which should be secured to him for alterations and improvements in the inventions, *from time to time* thereafter, for the same territory, to be held and enjoyed by Trimble to the full end of the terms for which patents had been theretofore, or might be thereafter, granted, in all respects as they would have been held and enjoyed by the assignor if the assignment had not been made.

The language employed is very broad. It includes alike the patents which *had been* issued and all which might be issued thereafter. No discrimination is made between those for the original inventions and those for alterations and improvements, nor between those which were first issues and those which were reissues or renewals and extensions. The entire inventions and all alterations and improvements, and all patents relating thereto, whensoever issued, to the extent of the territory specified, are within the scope of the terms employed. No other construction will satisfy them. Upon the fullest consideration we have no doubt such was the meaning and intent of the parties.

The effect of such a contract, we think, has been settled by this court in *Gayler v. Wilder*, 10 How. 477 [5 Am. & Eng. 188]. Fitzgerald, the inventor, before the patent was issued, assigned his entire right to Enos Wilder. The assignment contained a request that the patent should be issued to the assignee, and was duly recorded in the Patent Office. This brought the case within the terms of the 6th section of the Act of 1836, Fitzgerald made no assignment after the patent was issued to him. Enos Wilder, his assignee, assigned to Benjamin Wilder, who was the plaintiff in the action. The

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defendants insisted that Enos Wilder had not the legal, but only an equitable title. Upon the question whether an assignment subsequent to the issuing of the patent was necessary to pass the former to the assignee, this court said: "We do not think the Act of Congress requires it, but that when the patent issued to Fitzgerald, the legal right to the monopoly and the property it created was, by the operation of the assignment then on record, vested in Wilder." The argument which controlled the judgment of the court may be thus stated: Fitzgerald had an inchoate right at the time of the assignment, the invention being then complete and the specification prepared. It appeared by the language of the assignment, that it was intended to operate upon the perfect legal title, which he then had a lawful right to obtain, as well as upon the inchoate right which he then possessed. There was no sound reason for defeating the intention of the parties by restricting the assignment to the latter interest, and compelling the parties to execute another transfer, unless the Act of Congress required it, which, in the opinion of the court, it did not. The Act of 1836 declares that every patent shall be assignable in law. The thing to be assigned is not the mere parchment on which the grant is written, but the monopoly which the grant confers—the right of property which it creates. "And when the party has acquired an inchoate right to it, and the power to make that right perfect and absolute at his pleasure, the assignment of his whole interest, whether executed before or after the patent issued, is equally within the provisions of the Act of Congress." We concur in these views. The rule laid down is the law of this tribunal upon the subject. There the patent was an original one; here it is an extension. The question before us arises under the 11th and 18th sections of the Act of 1836. But the arguments which controlled the decision in that case apply in this with equal force. The same considerations are involved in both. There is no substantial

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ground of distinction. The application of the same principle to the assignment of an extended patent, made before the extension, is an inevitable corollary from the reasoning and ruling of the court. Without, in effect, overruling that adjudication, we cannot hold that Trimble had not a legal title under the extended as well as under the original patent. In our judgment he had such a title.

In this connection our attention has been called by the counsel for the plaintiffs in error to *Wilson v. Rousseau*, 4 How. 682 [4 Am. & Eng. 436], and several other cases. None of them turned upon the question we have been considering, and neither of them contains anything in conflict with the proposition established by *Gayler v. Wilder* [5 Am. & Eng. 188].

It remains to consider the contract between Trimble and Daniel Stone.

It recites the agreement between Trimble and Howe, and the payments thereby stipulated to be made by Trimble. Stone covenants to pay one-half of the instalments still unpaid as they should mature.

This clause follows :

“ And the said Isaac R. Trimble, in consideration of the said *payments, promises and agreements* on the part of the said Daniel Stone as aforesaid, for and on the part of himself, the said Isaac R. Trimble, and his heirs, executors and administrators, covenants and agrees, and by these presents doth covenant and agree to sell and transfer, *and doth hereby sell and transfer*, unto the said Daniel Stone, his heirs, executors and administrators, *the one equal moiety* or half part of all the right, title, claim, and interest of him, the *said Isaac R. Trimble*, of, in and to the patent right aforesaid, which he purchased as aforesaid of the said William Howe, the sale heretofore made to Reading excepted.”

A copartnership between the parties in the business of building bridges under Howe's patents was then entered into,

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and it was agreed that if either party should at any time desire a dissolution, Trimble should name a sum which he would be willing to give or take for a moiety of the rights which he acquired from Howe, including the payments to Howe, and that Stone should thereupon decide whether he would buy or sell. It was further provided that the co-partnership might be dissolved at the expiration of six months after notice by either party.

Trimble was examined as a witness, and testified as follows: Stone never made any of the payments which he was required to make by the contract. By common consent of the parties, the contract never went into operation in any way, because Stone was unable to comply with any of his engagements. Trimble was compelled to pay, and did pay, the full amount of the instalments still due on his contract with Howe. Stone during his lifetime never claimed any right under the contract; but, on the contrary, always recognized Trimble's exclusive right to the interest referred to in the agreement, and acted as Trimble's agent in building bridges, under a power of attorney, paying Trimble a part of the profits for the privilege. There was no other evidence on the subject. Trimble's testimony was uncontradicted.

The agreement was recorded in the Patent Office on the 27th of July, 1864, after Stone's death, and more than eighteen years after the date of its execution.

The words, "and do hereby sell and transfer," found in the copy from the Patent Office, which was used in evidence in the court below, are not in the copy annexed to the bill filed in the Supreme Court of Pennsylvania. But, conceding that they were in the contract as executed, and that the contract had the same effect in transferring to Stone a moiety of Trimble's rights and interests, which Trimble's contract with Howe had in transferring the whole to Trimble, then a question arose for the jury as to the effect of the facts disclosed in Trimble's testimony.

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Upon the trial the court, at the request of the plaintiffs, charged the jury in effect, that if they found the facts to be as testified by Trimble, the contract between Trimble and Stone "was not to be regarded as passing any title to Stone, which the defendant was entitled to set up in connection with any other evidence in the cause as a bar to the right of the plaintiffs to recover," provided they found also the execution and delivery of Trimble's deed to his co-plaintiffs. To this instruction the plaintiffs in error excepted.

If the facts were as alleged by Trimble, his contract with Stone was stillborn. It never had any vitality. Neither the legal representative of Stone nor anyone in privity with him asserts its validity in this litigation. It is vicariously put forward by the plaintiffs in error. They seek to give it life and vigor, and invoke its aid for their protection.

If a deed of real estate be executed and recorded, *prima facie* it conveys the legal title; but if it be shown it was not delivered, that destroys its effect. *Maynard v. Maynard*, 10 Mass. 456. A judgment may be assigned without written evidence of the transfer. *Ford v. Stuart*, 19 Johns. 342. A party may waive a constitutional provision which applies in his favor. *Baker v. Bramin*, 6 Hill, 48. Fraud or mistake in the execution of a deed may be shown at law. *Hartshorn v. Day*, 19 How. 223 [6 Am. & Eng. 330]. The most solemn contracts under seal, where the Statute of Frauds is not involved, may be changed or abrogated by a new parol agreement, express or implied; and a contract within the statute may be taken out of it by the conduct of the parties. *Emerson v. Slater*, 22 How. 41. If Stone's administrator were to sue Trimble, and the facts should be established as Trimble alleged them to be, the action would be barred by estoppel *in pais*. We think the instruction was correct, and that it properly submitted this part of the case to the jury.

The plaintiffs in error submitted eight prayers for in-

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structions. The 2d, 3d, 4th, 5th, 6th and 8th were refused. The refusal was excepted to. Some of the points which they present were not insisted upon in the argument at the bar. The others are sufficiently answered by what has already been said.

(a) *We find no error in the record, and the judgment below is affirmed* (b).

(a-b) Wallace substitutes "Judgment affirmed" and adds "Mr. Justice Bradley dissented on the ground that there was not enough language in the assignment of Howe to Trimble to show that a transfer of the extension was intended."

10 Wall. 333.

Notes:

3. Unqualified assignment of "invention" distinguished from "patent:"

Hendrie v. Sayles, 98 U. S. 546.

4. Assignment of extended term:

Wilson v. Rousseau, 4 How. 646 [4 Am. & Eng. 436].

Pavement Co. v. Jenkins, 14 Wall. 542. [p. 516 post].

Hendrie v. Sayles, 98 U. S. 546.

Held not an assignment of extended term:

Mitchell v. Hawley, 16 Wall. 544.

Patent in suit:

No. 4,726. Howe, W. August 28, 1846. Truss Bridge.

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Cited:

IN SUPREME COURT IN :

Nicholson Pavement Co. *v.* Jenkins, 1872. 14 Wall. 452; Bk. 20, L. ed. 777. [p. 516 *post*].

Hendrie *v.* Sayles, 1879. 98 U. S. 546; Bk. 25, L. ed. 176.

IN CIRCUIT COURTS IN :

Thayer *v.* Wales, April, 1872. 9 Blatch. 170; 5 Fish. 448.

Nicholson Pavement Co. *v.* Jenkins, April, 1872. 5 Fish. 491.

Ruggles *v.* Eddy, June, 1872. 10 Blatch. 52; 5 Fish. 581.

Mowry *v.* Grand St. & Newtown R. R. Co., June, 1872. 10 Blatch. 89; 5 Fish. 586.

Wetherill *v.* Passaic Zinc Co., October, 1872. 6 Fish. 50; 2 O. G. 471; 9 Phila. R. 385.

Gear *v.* Grosvenor, March, 1873. 1 Holmes, 219; 6 Fish. 314.

Prime *v.* Brandon Mnfg. Co., July, 1879. 16 Blatch. 453; 4 Ban. & Ard. 379.

Campbell *v.* Jones, May, 1880. 18 Blatch. 92; 2 Fed. Rep. 338; 5 Ban. & Ard. 354.

Fire Extinguisher Mnfg. Co. *v.* Graham, May, 1883. 16 Fed. Rep. 543; 24 O. G. 793.

Adams *v.* Bridgewater Iron Co., February, 1886. 26 Fed. Rep. 324. 34 O. G. 1045.

Johnson *v.* Wilcox & Gibbs Sewing Machine Co., May, 1886. 23 Blatch. 531; 27 Fed. Rep. 690.

IN DECISIONS OF COMMISSIONER OF PATENTS IN:

Holmes & Spaulding, December, 1873. 4 O. G. 581.

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IN STATE COURTS IN :

Barnes v. Morgan, March, 1875. 10 S. C. R. N. Y. 703.

Syllabus.

THE EUREKA CLOTHES WRINGING MACHINE
COMPANY, APPELLANT, v. THE BAILEY WASH-
ING & WRINGING MACHINE COMPANY.*

11 Wall. 488-492. Dec. Term, 1870.

[Bk. 20, L. ed. 209; 2 Whit. 237.]

Argued April 11, 1871. Decided May 1, 1871.

*Contract. Corporation. Signature. Reissue. Fraud. Want of
Novelty. Notice.*

1. Where the agreement of the defendant corporation was signed by its treasurer, who affixed his private seal, *held* that neither the failure of plaintiff to produce an order in writing by the board of directors, nor the absence of the corporate seal were essential to the validity of the contract; and that the acting of the company upon it and the payment of money under it amounted to a ratification. (p. 284.)
2. *Doubted* that after an agreement relating to the use of a reissued patent made on due deliberation and intended to adjust conflicting rights, and after making machines thereunder, defendants, licensees under the agreement, could set up the defense that the machines were not covered by the original patent, in the absence of frauds or surprise shown by cross-bill or in the answer. (p. 285.)
3. A reissue cannot be attacked collaterally for fraud in obtaining it; it can only be considered in some direct suit to impeach and set aside the patent. (p. 285.)
4. The defense of want of novelty of the patented invention cannot be set up in the absence of notice. (p. 286.)

[Citations in opinion of the court:]

Rubber Co. v. Goodyear, 9 Wall. 788. [p. 150 *ante*]. p. 286.

Appeal from the Circuit Court of the United States for the District of Massachusetts.

The bill in this case was filed in the court below, by the

* See Explanation of Notes, page III.

Argument of counsel.

defendants in error, for an accounting and a decree for the payment of money, according to the provisions of certain agreements for the use of a patent. A decree having been rendered in favor of the complainant, the respondent took an appeal to this court.

The case is fully stated by the court.

Mr. Jas. B. Robb, for appellant.

“A promise for which there is no consideration cannot be enforced at law.”

“The rule was intended to protect parties from mistake, inadvertence or fraud.”

1 Pars. Cont. 427, 428.

A consideration must be proved where the contract is in writing, as much as if the contract were oral only.

1 Pars. Cont. 429.

An exception is made in favor of contracts under seal; but the indenture relied upon not being sealed with the official or corporate seal of the Eureka Company, is to be treated as a parol contract.

Gen. Stat. of Mass., ch. 13, sec. 7, clause 15.

The consideration must have some real value.

1 Pars. Cont. 436.

The only consideration to support the defendant's promise, is a grant of a right to use, in the manufacture of wringing machines for sale, such parts of the invention of John Allender, secured by the reissued patent, as are represented in defendant's machine, and no other.

It did not contain any part of the invention. Nothing passed by the grant, and there was no consideration for the promise.

Messrs. Charles Levi Woodbury and M. E. Ingalls, for appellee.

1. A corporation may adopt any seal it chooses, for the time being, as well as an individual.

Perk. 1, sec. 32; *Mill Dam Foundry v. Hovey*, 21 Pick.

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428; *Porter v. R. R. Co.*, 37 Me. 349; *Bk. v. Rut. R. R. Co.*, 30 Vt. 159.

2. Where a corporation makes a contract through an agent, who puts a seal to it, it becomes its contract, although it has not its common seal.

See cases cited above.

3. A corporation may appoint an agent by mere vote, or by any corporate act whatever.

Ang. & Ames, Corp. 313; *Bk. v. Patterson*, 7 Cranch, 305.

4. Such appointment may be inferred or implied from his being held out as such agent by the officers of the corporation, or from the recognition of his acts as agent by the directors or by the corporation.

2 Kent, Com. 288; *Story, Ag.* 652; *Bk. v. Dandridge*, 12 Wheat. 64; *Randall v. Van Vechten*, 19 Johns. 60; *Bk. v. Guttschlick*, 14 Pet. 29.

5. It is not necessary that authority from a corporation to its agent to contract in its behalf, should be given at an assembly of the directors; but their assent may be obtained separately.

Bk. v. R. R. Co., 30 Vt. 159.

6. Knowledge and concurrence of stockholders in all that is done is sufficient authority to its agents.

Miller v. R. R. Co., 36 Vt. 475.

7. A corporation becomes bound for the unauthorized acts of its agents by a subsequent ratification, the same as a natural person.

See cases before cited, and *Turnpike v. Collins*, 8 Mass. 299; *Gordon v. Preston*, 1 Watts, 385; *Curtis v. Leavitt*, 15 N. Y. 49; *Hoyt v. Thompson*, 19 N. Y. 207.

8. This ratification may be inferred from the silence of the corporation upon receiving notice, through its proper officers, of the acts of one assuming to act as its agent.

Gordon v. Preston, 1 Watts, 385; *Curtis v. Leavitt*, 15 N. Y. 49; *Hoyt v. Thompson*, 19 N. Y. 207; *Frothingham*

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v. Haley, 3 Mass. 70; *Shaw v. Nudd*, 8 Pick. 9; *Thayer v. White*, 12 Met. 343.

9. Notice to an agent in the transactions for which he is employed, is notice to the principal. This rule applies equally to a corporation, as to a natural person.

Ang. & Ames, Corp., sec. 305, and cases there cited.

10. The directors of a corporation are its authorized agents, and notice to them in their official capacity is notice to the corporation.

Ang. & Ames, Corp., sec. 306; *Burrill v. Bk.*, 2 Met. 163; *Sargent v. Webster*, 13 Met. 497; *Bk. v. Lewis*, 22 Pick. 32; *Bk. v. Davis*, 2 Hill, 451.

Mr. Justice MILLER delivered the opinion of the court:

The appellee was the owner of a reissued patent for an improved washing and wringing machine, the original of which had been issued to John Allender. There had been several surrenders and reissues of this patent, the last of which is on the 22d of July, 1865. The appellant being engaged in the manufacture of clothes wringing machines under other patents, entered into a written covenant, as the bill of the appellee charges, with the appellant, for the privilege of using their patent, and the bill makes exhibits of two written agreements on this subject.

The first of these agreements licenses the Eureka Company to use the patent of the Bailey Company during the existence of the patent and of any renewal thereof, for which the Eureka Company is to pay a royalty of fifty cents for every machine manufactured by it in which the patent is used. To secure the performance of this, and to prevent any misunderstanding, the Eureka Company furnished a sample of the machines, and agreed that its books should at all times be open to the examination of the complainants, and that it would make monthly reports and payments; and it covenanted that it would not directly or

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indirectly infringe the reissued patent of complainants, or violate the conditions of their agreement.

The second covenant was made to arrange the prices at which the machines made by the parties should be sold, so to prevent injurious competition.

The bill charges that these covenants were the result of protracted negotiations, in which the original patent, the reissues and the character of the invention were well considered, and that they were a fair adjustment of the interests of the parties.

It is then alleged that, in the first month, five hundred machines were made under the contract and paid for by defendant, but that it continued to make and sell the machines, and refused to account or pay for them. It then prays for a discovery of the number made, and for an account and decree for the sum due, and for an injunction against the use of the patent, until the sum found due shall be paid.

The answer denies the agreement, denies the infringement, asserts that the reissued patent was obtained by fraud; that it was a device to cover matter not invented or claimed by John Allender, and denies that the machines made by defendants have anything in them covered by the patent of plaintiff.

After replication and testimony, a final decree was rendered, according to the prayer of the bill.

1. (a) We are satisfied that the agreements set up in the bill are the valid contracts of the defendant. Though the plaintiff was unable to produce any resolution or order in writing by the trustees or board of directors of the defendant corporation, and though the seal used was the private seal of one of its officers, instead of the corporate seal, neither of these is essential to the validity of the contract. We entertain no doubt that Rindge, the agent and one of the directors and treasurer of the Eureka Company, was

(a) Wallace, begins Opinion here.

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authorized to execute the agreement, and if any doubt existed on that point, the report and payment for five hundred machines, the first month's use of the patent under that agreement, would remove the doubt. If it did not, it would very clearly amount to a ratification.

2. The defendant company furnished a sample of the machine they were making. That machine is before us. We do not understand that it is seriously contended that this machine does not contain some part of the invention covered by the reissue of the Allender patent. The effort of defendant is to show that it is not covered by the original patent to Allender. This latter point will be noticed presently. After making the agreement in this case, an agreement made on due deliberation, the defendant being engaged in the business of making the machines before it took the license—an agreement manifestly intended to adjust conflicting rights—and after furnishing one of the machines as a sample of what it proposed to do under that agreement; and after having made and sold five hundred of them, there arises a very strong presumption that the denial that anything in those machines is covered by plaintiff's patent is made to support an unwillingness to pay the royalty which it had agreed to pay. And we are not at all satisfied that, in equity, it can be permitted to set up this defense, while it makes no attempt, by cross-bill or even in the answer, to show that the agreements were obtained by fraud, surprise or imposition.

But if this could be permitted, the testimony does not repel the presumption arising from the making of that contract, and the defendant's action under it, that the machines made by it do contain matter covered by the reissued patent of plaintiff.

3. If defendant means, by the very vague answer to the bill, to set up and rely on a fraud by which the commissioner was misled and deceived and induced to reissue the patent, and that the plaintiff or its assignors were the

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guilty parties, that question cannot be raised in this collateral proceeding, and can only be considered in some direct suit to impeach and set aside the patent. *Rubber Co. v. Goodyear*, 9 Wall. 788 [p. 150 *ante*].

But if it is meant merely to say that, in point of fact, the reissue embraces matter which was no part of Allender's original invention, then there is no evidence in the record by which we can determine that question, for neither the original patent to Allender, nor any part of it, nor any of the reissues of that patent, except the last, which is the one claimed to be wrongfully reissued, is in the record.

4. Some attempt is made to assail the novelty of Allender's invention, but as no notice was given of any such attempt, or of the witnesses or other evidence by which that charge was to be supported, it cannot be considered in this case.

On the whole case we concur with the Circuit Court, and its judgment is affirmed.

11 Wall. 492.

Notes:

3. Patent cannot be impeached for fraud in collateral proceedings:

Rubber Co. v. Goodyear, 9 Wall. 788 [p. 150, *ante*].

Seymour v. Osborne, 11 Wall. 516 [p. , *post*.]

Railroad Co. v. Dubois, 12 Wall. 47 [p. , *post*.]

4. Want of novelty cannot be set up without notice:

Blanchard v. Putnam, 8 Wall. 420. [p. 107 *ante*].

Railroad Co. v. Dubois, 12 Wall. 47. [p. *post*]. See

Wise v. Allis, 9 Wall. 737 [p. 143, *ante*, note 1].

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Patent in Suit:

No. 22,539. Allender, J. January 11, 1859. Reissue No.
1,934, April 18, 1865. Clothes Wringer.

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Root v. L. S. & M. S. R. Co., 1882. 105 U. S. 189; Bk. 26, L. ed.
975.

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Moorman v. Hoge, October, 1871. 2 Sawy. 78.
Gear v. Grosvenor, March, 1873. 1 Holmes, 216; 6 Fish. 314.
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2 Ban. & Ard. 152; 8 O. G. 773.
Atwood v. Portland Co., July, 1880. 10 Fed. Rep. 283; 5 Ban. &
Ard. 533.
National Mnf. Co. v. Meyers, May, 1881. 7 Fed. Rep. 355; 12
Reporter, 5.
Oregon R. R. Co. v. Oregon R. & Nav. Co., 1886. 28 Fed. Rep. 505.
McKay v. Smith, November, 1886. 29 Fed. Rep. 295.

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Berry v. Stockwell, January, 1876. 9 O. G. 404.

Notes and Citations.

IN STATE COURTS IN:

The Forncrook Mnfg. Co. v. Wire &c. Works, June, 1884. 54
Mich. Rep. 552.

IN TEXT-BOOKS :

2 Abb. Pat. Law, 1886, p. 115.
Curtis on Pats., 4th ed., § 282 b.
Walker on Pats., 1883, p. 158.

Syllabus.

WILLIAM H. SEYMOUR ET AL., APPELLANTS, v.
DAVID M. OSBORNE ET AL.*

11 Wall. 516-560. Dec. Term, 1870.

[Bk. 20, L. ed. 33; 2 Whit. 291.]

Reversing *ibid*, 3 Fish. 555.

Argued November 23, 1870. Decided January 9, 1871.

Patent. Evidence. First inventor. Burden of proof. Recitals in letters patent. Oath. Description of machine of combination. Particular patents construed. Patent cannot be collaterally impeached for fraud. Conclusiveness of Commissioner's decision. Reissue. Identity of invention in original and reissued patents. Original patent in evidence. Construction of claims. Substantially as described. Improvement patentability. Abandoned experiments. Prior foreign publication. Combination. Infringement. Doctrine of equivalents. Multifariousness.

1. Letters patent are *prima facie* evidence that patentee is the original and first inventor. (p. 359.)
2. Where complainants produce their patents in evidence, it casts on defendant the burden of proving that patentees were not the first and original inventors. (p. 360.)
3. Recitals in letters patent, original and reissued, that the required oath was taken before the same was granted, are in the absence of fraud conclusive evidence that the necessary oaths were taken by the applicants before the letters patent were granted. (p. 361.)
4. What constitutes a sufficient description of an invention when it embraces an entire machine; or a combination of old and new elements; or a new combination of old elements. (p. 363.)
5. The particular patents in suit, reissued letters patent Nos. 1,109, January 1, 1861; No. 1,682, May 31, 1864; No. 1,177 (No. 72), May 7, 1861; No. 1,683, May 31, 1864, and original patent No. 10,459, January 24, 1854, Harvesters, *held* to have sufficiently pointed out in their specifications and claims the

*See Explanation of Notes, page III.

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parts, improvements or combinations which they claim as their respective inventions, and that the reissues are in due form. (p. 364.)

6. Neither reissued nor extended patents can be abrogated by an infringer, in a suit against him for infringement, upon the ground that the letters were procured by fraud in prosecuting the application for the same before the Commissioner. (p. 365.)
7. Where the Commissioner grants a reissued patent, his decision in the premises, in a suit for infringement, is final and conclusive, and is not re-examinable in such a suit in the Circuit Court, unless it is apparent upon the face of the patent that he has exceeded his authority, that there is such a repugnancy between the old and new patent that it must be held as a matter of legal construction that the new patent is not for the same invention as embraced and secured in the original. (p. 365.)
8. Reissued letters patent must be for the same invention as that embraced and secured in the original, if not the reissue is invalid. Permissible variation between the original and reissued patent. (p. 366.)
9. All matters of fact involved in the hearing of an application to reissue are conclusively settled by the Commissioner's decision. Matters of construction arising on the face of the instrument are still open. (p. 367.)
10. Where the defense set up was that the reissued patents were for different inventions from those embraced in the original patents, *held* that it was a matter of construction for a court of equity to be determined by a comparison of the original and reissued patents aided or not by the testimony of expert witnesses, and that respondents having failed to introduce the original patents in evidence, the defense was not open to them. (p. 368.)
11. Where the claim immediately follows the description of the invention, it may be construed in connection with the explanations contained in the specifications, and where it contains words referring back to the specifications, it cannot properly be construed in any other way. And where the defense was

Syllabus.

that certain claims were for an effect, and not for any particular machinery, *held* that in view of the words "substantially as described," or "substantially as set forth," or words of equivalent import employed in each claim, the defense was without merit. (p. 369.)

12. Where a general replication is filed a defense in the answer setting up new matter, must be proved. (p. 370.)
13. *Held* that the four reissued letters patent Nos. 1,109, 1,117, 1,682 and 1,683, are for improvements on a machine as distinguished from a machine patentable under the act of Congress, and consist of new combinations of old elements, and involve invention. (p. 370.)
14. In what patentable improvements on an old machine may consist. (p. 371.)
15. Reissue No. (72) 1,177, May 7, 1861, *held* not anticipated by Hussey's abandoned experiment, built prior to the perfecting of the patented invention, but never reduced to practice as an operative machine. (p. 372.)
16. Crude and imperfect experiments are not sufficient to confer a right to a patent; but in order to constitute an invention must have been reduced to practice and embodied in some distinct form. (p. 374.)
17. He is the first inventor, and entitled to a patent for his invention, who first perfected and adapted the same to use, and until the invention is so perfected and adapted to use, it is not patentable. (p. 375.)
18. The two claims of reissued letters patent No. (72) 1,177, May 7, 1861, *held* not anticipated by Burrall's prior device showing only one of their elements in a substantially different combination. (p. 375.)
19. Patented inventions cannot be superseded by the mere introduction of a foreign publication, though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct and practice the invention to the same practical extent as they

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- would be enabled to do if the information were derived from a prior patent. (p. 378.)
20. Mere formal alterations in a combination are no defense to the charge of infringement, and the withdrawal of one ingredient from the same and the substitution of another which was well known at the date of the patent as a proper substitute for the one withdrawn, is a mere formal alteration of the combination if the ingredient substituted performs substantially the same function as the one withdrawn. (p. 379.)
21. Patentees are entitled in all cases to invoke to some extent the doctrine of equivalents, but they are never entitled to do so in any case to suppress all other substantial improvements. (p. 379.)
22. Reissued letters patent No. (4) 1,109, January 1, 1861, and No. 1,682, May 31, 1864, of original patent No. 8,192, Palmer and Williams, July 1, 1852, Harvester; and reissued letters patent No. (72) 1,177, May 7, 1861, and No. 1,683, May 31, 1864, of original patent No. 8,212, W. H. Seymour, July 8, 1851, Harvester; and Letters Patent No. 10,459, Palmer and Williams, January 24, 1854, Harvester. Examined and *held* infringed. (p. 380.)
23. *Seem* that a bill joining five several patents in the charge of infringement, is not open to objection where all the claims appertain to the same general subject, and it requires all the inventions in question to constitute a complete machine, such as complainants make and furnish the public. (p. 385.)

[Citations in opinion of the court:]

White v. Allen, 2 Cliff. 224. pp. 360, 375.

Agawam Co. v. Jordan, 7 Wall. 583 [p. 24, *ante*]. p. 361.

Teese v. Huntingdon, 23 How. 2 [7 Am. & Eng. 72]. p. 361.

Union Sugar Ref. v. Matthiessen, 2 Fish. Pat. Cas. 600. p. 364.

R. R. v. Stimpson, 14 Pet. 448 [4 Am. & Eng. 324]. pp. 365, 367.

Stimpson v. R. R., 4 How. 380 [4 Am. & Eng. 398]. pp. 365, 367.

Rubber Co. v. Goodyear, 9 Wall. 788 [p. 150, *ante*]. pp. 365, 367.

Rubber Co. v. Goodyear, 2 Cliff. 351. p. 365.

Battin v. Taggart, 17 How. 74 [6 Am. & Eng. 202]. p. 366.

O'Reilly v. Morse, 15 How. 62 [5 Am. & Eng. 488]. p. 366,

Sickles v. Evans, 2 Cliff. 203. pp. 366, 367.

Allen v. Blunt, 8 Story, 742. p. 366.

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- Cahart v. Austin, 2 Cliff. 528. p. 367.
 Curt. Pat. (3d ed.) 276. p. 367.
 Woodworth v. Stone, 3 Story, 749. p. 367.
 Bischoff v. Wethered, 9 Wall. 812 [p. 213, *ante*]. p. 369.
 Betts v. Menzies, 4 B. & S. Q. B. 999. pp. 369, 378.
 Bray v. Hartshorn, 1 Cliff. 538. p. 371.
 Losh v. Hague, 1 Web. Pat. Cas. 202 [2 Am. & Eng. 501]. p. 371.
 Hind. Pat. 95. p. 371.
 Phillips v. Page, 24 How. 164 [7 Am. & Eng. 97]. p. 371.
 Norm. Pat. 25. p. 371.
 Park v. Little, 3 Wash. (C. C.) 196. p. 371.
 Lowell v. Lewis, 1 Mason, 182. p. 371.
 Bedford v. Hunt, 1 Mason, 302. p. 371.
 Many v. Jagger, 1 Blatchf. 372. p. 371.
 Barrett v. Hall, 1 Mason, 447. p. 371.
 Johnson v. Root, 2 Cliff. 108, p. 375.
 Gayler v. Wilder, 10 How. 477 [5 Am. & Eng. 188]. p. 375.
 Parkhurst v. Kinsman, 1 Blatch. 488. p. 375.
 Washburn v. Gould, 3 Story, 122. p. 375.
 Cahoon v. Ring, 1 Cliff. 592. p. 375.
 Web. Pat. Cas. 719. p. 378.
 Curt. Pat. (3d ed.), sec. 278, a. p. 378.
 Hills v. Evans, 6 Law T. N. S. 90 p. 378.
 Pitts v. Whitman, 2 Story, 609. p. 378.
 Ames v. Howard, 1 Sumn. 482. p. 378.
 Prouty v. Ruggles, 16 Pet. 336 [4 Am. & Eng. 351]. p. 379.
 Blanchard v. Putnam, 8 Wall. 420 [p. 107, *ante*]. p. 382.

Appeal from the Circuit Court of the United States for the Northern District of New York.

The bill in this case was filed in the court below, by the appellants, to recover for an alleged infringement of a certain patent. A decree having been entered dismissing the bill, the complainants took an appeal to this court.

The case is very fully stated in the opinion of the court.

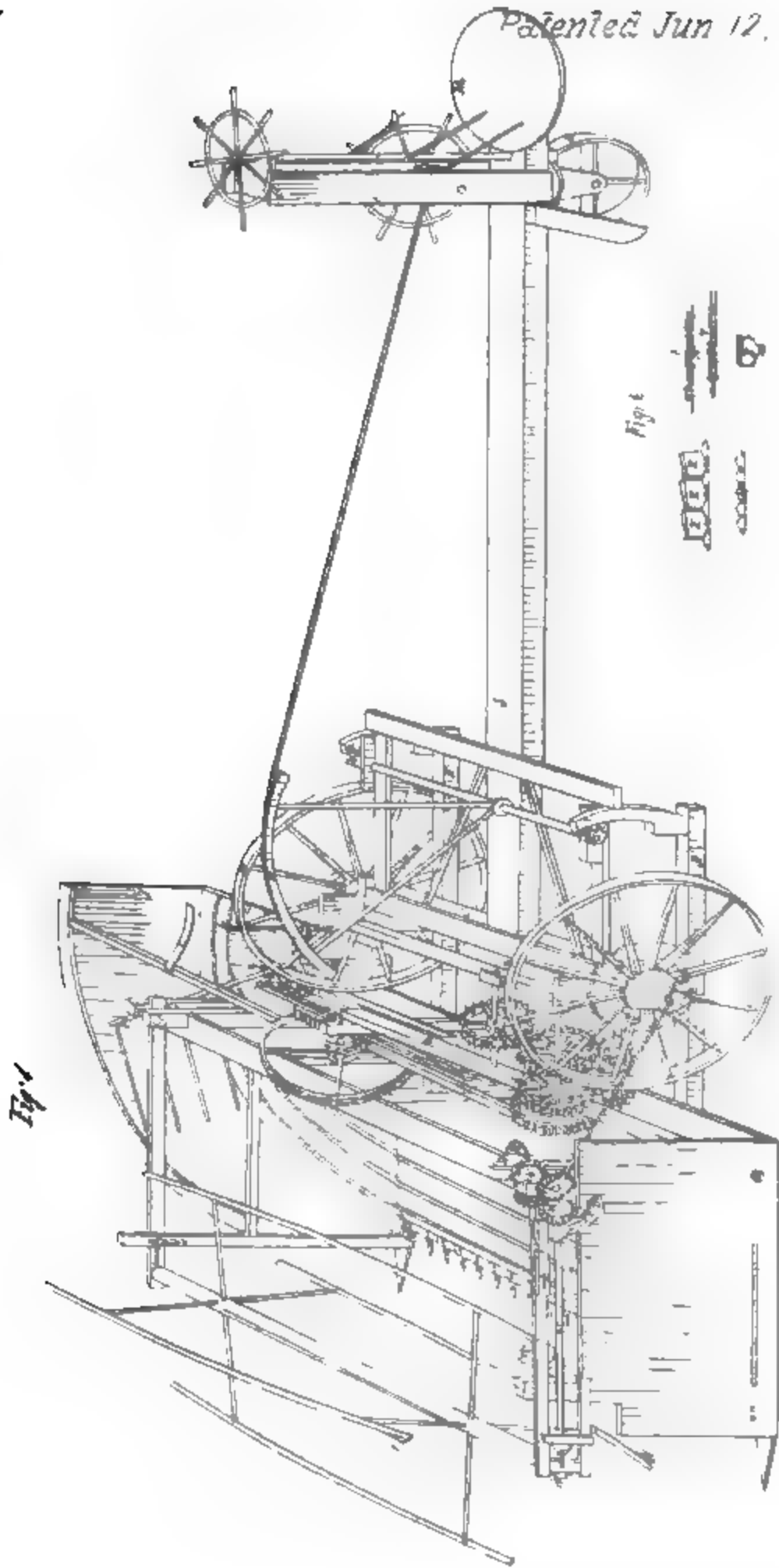
The specifications and drawings of the reissued and original letters patent referred to in the opinion of the court are as follows. The alleged anticipating Platt device is also added :

2 Sheets
Sheet 1

N. Platt.
Morrer.

N^o 6517

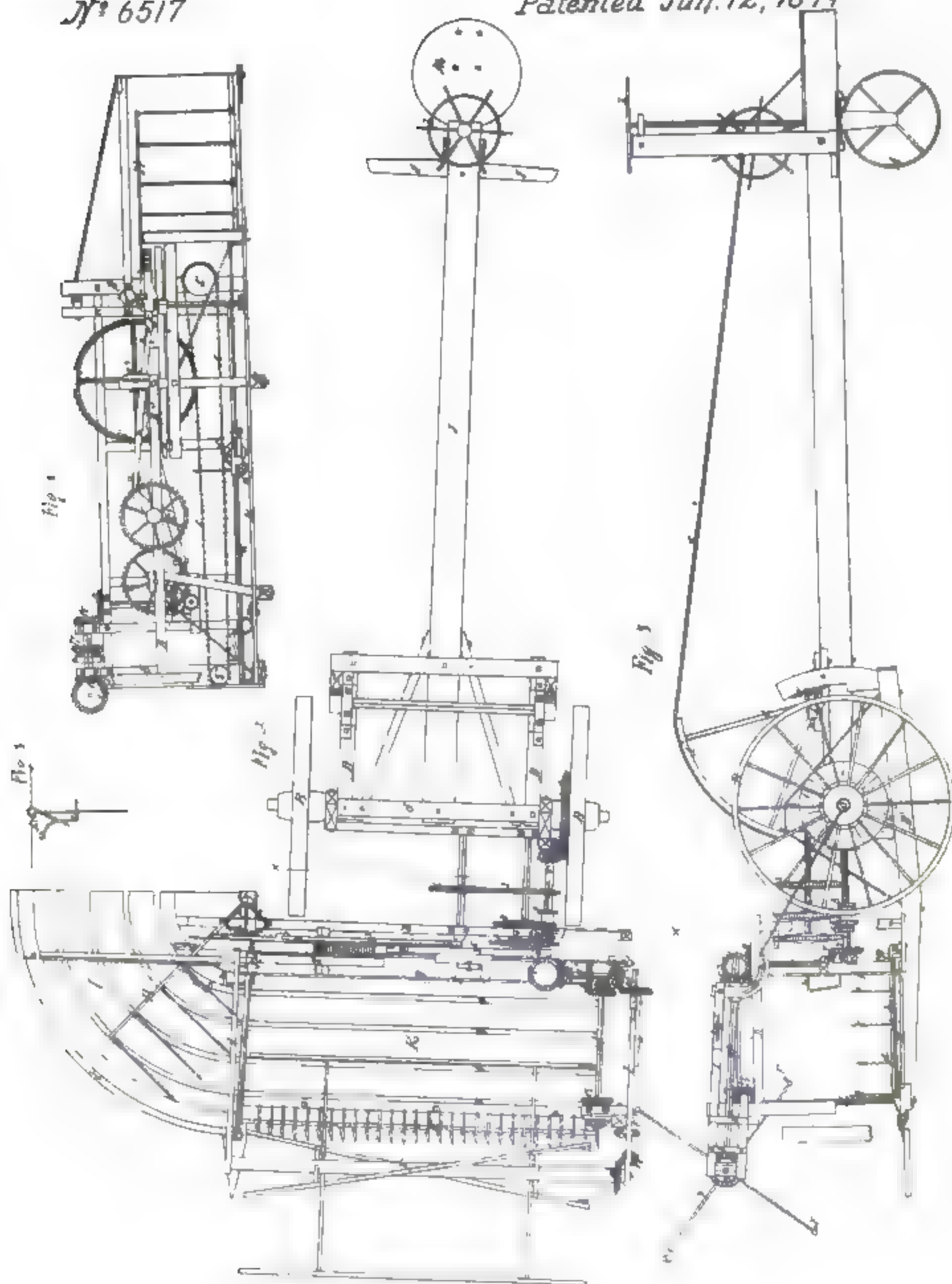
Patented Jun 12, 1849



N. Platt.
Morrer.

N^o 6517

Patented Jun. 12, 1849



Statement of the case.

NELSON PLATT, OF OTTAWA, ILLINOIS.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 6,517, dated June 12, 1849.

To all whom it may concern :

Be it known that I, Nelson Platt, of Ottawa, in the county of La Salle, and State of Illinois, have invented certain new and useful improvements in machines for cutting and raking grain or grass by animal power, of which the following is a full and exact description, reference being had to the annexed drawings of the same, making part of this specification, in which—

Figure 1 is a perspective view of the apparatus, showing its several parts in connection and ready for operation. Fig. 2 is a top view. Fig. 3 is a side elevation, a portion of the frame being removed to expose the rake and sickle. Fig. 4 is a sectional view taken through the line, *xx*, of Fig. 2. Fig. 5 is a view of the stop and catches by which the auxiliary rake is turned down to take the sheaf of grain from the first or principal rake detached from the machine. Fig. 6 is a view of a section of the chain and cutters in various positions.

The same letters indicate the same parts in all the figures.

The machine as represented in the accompanying drawings, is mounted upon three wheels, the hindmost of which, A, is hung upon a pivot or vertical shaft, *a*, which is turned by the attendant, to govern the course of the machine when in motion, by means of a steering-wheel, *b*, secured upon its upper end. The other or front wheels, B, are secured in the usual manner upon the opposite ends of an axle, C, upon which the frame D is suspended, together with its platform, the cutters, E, reel, F, first rake, G, and second rake, H, with the mechanism required to operate them severally. The frame D is raised and lowered upon the axle C, which acts as its fulcrum for the purpose of

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elevating and depressing the cutters to adapt them to cutting off the grain at different heights from the ground by means of the segment-racks *c* and pinions *d*, the former attached to the back end of the frame *D*, the latter the beam *J*. The pinions *d* are turned by the quadrant lever or sector *d'*, and the latter is moved by a rope or chain, *f*, which is drawn up and let down by the windlass *i*, to which it is attached. The windlass is provided with a pawl or stop to hold it at any position it may be necessary to place it in the adjustment of the cutters, and for the purpose of raising the cutters up to be out of the way and pass over obstructions with which it might otherwise come into contact in moving along the road from one place to another.

The horses or other animals employed to propel this machine are harnessed to a whiffletree, *g*, attached to the beam *J*, on either side of which they travel. The beam *J* also connects the wheels *A* and *B B*, and supports the steering apparatus, and likewise supports the man who guides the machine and drives the team.

The swing-frame *D* consists of two principal beams, *D' D'*, suspended to the axle *C* by arms *h h*, projecting from their upper side, and braced so as to give them the requisite firmness and strength. Upon the rear end of these beams the studs *i i* are erected, to which the rack *c c* are secured. Upon the front end of these beams *D' D'* the double platform *K* is placed, in which the endless-chain cutter *E* and the first or principal rake are secured and operate, and also the side platform, *L*, upon which the sheaf is conveyed by the second rake. Upon these platforms are placed the frame for supporting the reel *F*, and the wheels and shafts which operate it, also the frame for supporting the wheels, shafts, &c., which operate the rakes, with the guards or partitions *j*, to prevent the grain both from falling off the platform and also from getting entangled in the machinery.

The object for which I use the reel *F* is the same as that for which it is used by others—namely, pressing the grain

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against the cutters ; and as it requires to be elevated and set back for long and depressed and moved forward for short grain, in order that they may be respectively cut to the best advantage, I have made provision for varying its adjustment to any required position by making slots *b* in the horizontal bars *l*, to which the bearings in which the axis of the reel rests are secured, and also by making slots *m* in the posts *n* for the bolts to pass through which support the horizontal bars.

The horizontal shaft *o'*, upon which the wheels are mounted which turn the reel, slides through the hollow axis of the wheel 14, by which it is driven, and has a longitudinal groove in its side, into which a stud in the eye of the wheel projects to drive it. The object of this sliding connection of the shaft *o'* and wheel 14, is to prevent derangement of the driving-gear when the reel is moved in and out for the purpose of adjustment. The vanes of the reel are placed obliquely to its axis for the purpose of bringing the grain more gradually and with greater regularity into contact with the cutters, and also to press it obliquely against them in a direction contrary to their motion and parallel to the inclination of the indentations formed in their edge, which is found in practice greatly to facilitate the cutting. The grain has a tendency to slip past the hindmost end of the vanes in consequence of their inclination, and thus escape being cut. To prevent the loss of grain and defect in the performance of the machine thus occasioned, I place a wedge or hook, *F'*, upon the end of each vane, in the plane of its motion, which prevents the grain from slipping over it.

The cutter or sickle *E* consists of a series of short sections of uniform shape, each corresponding in length with and secured to the links of an endless chain, *N*, by means of screws—bolts or otherwise. By this arrangement each cutter can very readily be removed to be either sharpened, repaired, or replaced by another, and as the cutters form no part of the chain they are not liable to be broken or deranged by the force which is required to overcome the

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inertia and friction of the chain and of themselves, as that is borne by the chain by which they are carried, so that they have to sustain only the force required to make the cut.

The chain N and sectional cutters E are respectively formed as represented in Fig. 6, each section being narrowest at the end which goes forward, in order that the grain or grass may be the more readily seized and cut off. The edges of the cutters are serrated, in the manner of a sickle, and one end is sharpened in order that it may cut off any straw or other obstruction intervening between it and the plane surface of the adjacent end of the next section. This point I deem of much importance, because it renders the cutters capable of freeing themselves of straw and grass, which otherwise would soon choke and cause them to break. The chain, with its attached cutters, is stretched round pulley, *o'*, and cog-wheel, *o*, Fig. 1, the teeth of which take into the interstices between the links, so that when the cog-wheel revolves it carries the chain with it at its own velocity. The wheel and pulley are secured upon vertical axes which turn in suitable bearings attached to the platform or frame. A groove is formed between the upper and under surface of the platform for the chain to run in, to keep it in the proper position, and prevent its yielding to the pressure exerted by the grass or grain against the cutters. I contemplate making the edge of the sectional cutters either smooth or serrated, and also so forming them that when the chain is in a straight line they will either form a straight or a more or less indented edge, as the particular circumstances of the case may render it advisable. It may also be found advisable to make the sections at some distance apart, instead of making them contiguous.

The platform K is double, the upper portion being slotted for the teeth *q* of the rake to pass through, the head of the rake moving between the top and the bottom.

The rake-head G is placed in a sliding stock, Q, which runs backward and forward on a guide-rod, Q'. The end

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of the rake-head within the stock has a pinion, r , or a segment of one secured upon it, into which a quadrant-rack, r' , takes, which is attached to the end of a lever, r'' , which turns on a fulcrum on the sliding stock Q , the lever and fulcrum being so arranged that the chains s' , which draw the stock and the rake backward and forward, will turn the pinion r each time the motion is reversed far enough to turn the rake-teeth q through an angle of ninety degrees, so as to change them from the vertical to a horizontal position, and vice versa, in order to stand upright to sweep the grain from the first to the second platform, and then again assume a horizontal position to pass beneath the platform to be in position again to rake the cut grain from it. These alterations of the first rake are produced by the two chains s' , one end of each of which is attached to the lever r'' , and the other, after being passed over the pulleys s'' , is secured to the periphery of the flanged drum S , which is alternated by a rack, s' , which takes into a pinion, s^4 , upon its axis. The rack s' is alternated by a pitman, s^5 , which is moved by a crank-pin, to which it is secured, upon the face of the driving-wheel 5.

The second rake, H , is attached by one end of its head to a cogged quadrant, T , in such a manner that it may be turned upon its own axis at the same time that it is swung through the arc of vibration of the quadrant to carry the grain received from the first rake over the second platform and deposit it behind the latter on the ground. In order that the ends of the teeth may be carried above and placed behind the grain or grass delivered by the first rake upon the second platform, they are turned into a horizontal position when moving forward by a weighted lever, T'' , in which position they remain until brought over and behind the grain to be removed by them. The bent arms $t\ t$ upon the inner end of the head, coming against and sliding upon an irregular fixed catch or stop, u , Figs. 2, 3, and 5, turn the teeth down again into a vertical position, when the quadrant is reversed in its motion, engaging an arm, T''' ,

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which holds up the weighted lever and keeps the rake vertical until it has discharged the grain, when the quadrant T being reversed, the rakehead comes into contact with the spring t' , which offers sufficient resistance to disengage the arm T''' from the catch t'' , when the weighted lever immediately turns up the teeth again into the horizontal position to prepare them for a repetition of the operation just described. The quadrant T gears into and is alternated by the rack U, which is moved by the pitman U', the latter receiving its motion from the wheel 6, to which it is attached by a wrist-pin or otherwise.

Motion is communicated to the cutter, reel, and rakes from one of the wheels B, which has a cog-wheel, 1, secured to it in any suitable manner, which gears into a pinion, 2, mounted upon the principal driving-shaft v , upon which are placed three pinions, 3' 4' 5', of unequal sizes, and having one hollow axis which is common to all, and slides upon the shaft v , so that any one of the pinions may be placed into gear with that one of the wheels 3, 4, and 5 upon the second driving-shaft with which it matches. The front wheel, 3, upon the second driving-shaft gears into and drives the wheel 6 and the third driving-shaft upon which it is mounted. Upon the end of this last shaft is placed a crank, which operates the pitman U, that turns the quadrant T, that turns second rake, which crank is so placed as to bring this rake into the proper position to receive the grain brought forward by the first rake immediately after the same has been deposited by it upon the second platform. Upon the front end of the first driving-shaft, v , a bevel-wheel, 7, is placed, which takes into a similar wheel, 8, and drives the upright shaft 8', upon which it is mounted. Upon the upper end of the last shaft another bevel-wheel, 9, is placed, which gears into and drives a like wheel, 10, which drives the shaft 10', upon which it is mounted, together with the two wheels 11 and 12. One of the wheels, 11, gears into the wheel 13, which is secured to and drives the shaft 13', upon the opposite end of which is a bevel-wheel,

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15, which takes into and drives the wheel 16, which is mounted upon and drives the vertical shaft 16', upon which is the driving-wheel *o* of the endless chain, to which the cutters are attached. The other wheel, 12, mounted upon the shaft 10', takes into the wheel 14, whose axis is hollow, and is mounted upon the shaft *o'*, which it drives, the other end of this shaft carrying the wheel 18, which gears into and drives the wheel 19, mounted upon the end of the axis of the reel and turns the same.

The cone of pinions 3' 4' 5' and wheels 3 4 5 are for the purpose of governing the frequency of the alternations of the rakes, so as to make the sheaves of a size corresponding to the growth of the grain.

The train of wheels above described, as well as the other devices employed to give to the cutter, reel, and rakes their requisite movements may be constructed and arranged as represented, and in various other ways well known to the machinist, and which do not therefore require a particular description. These motions may also be produced by belts or chains and pulleys, instead of gear, if the same should be thought preferable by the constructor. The several parts of the apparatus may be made of such materials as it is deemed best by the constructor to employ.

The operation is analogous to that of other harvesting-machines. The horses being attached to the beam J, and the several parts properly adjusted, the conductor mounts the platform M, and, starting the team, advances the machine, guiding it by means of the steering-wheel *b*, which is capable of turning the wheel A, so as to turn the machine entirely around in a very short space. The reel presses the standing grain back against the cutters, which cut it off, letting it fall upon the platform, whence it is taken by the rakes, which remove it with sufficient frequency to render each lot taken off of a suitable quantity for a sheaf.

What I claim as my invention, and desire to secure by Letters Patent, is—

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1. The combination of a series of removable cutters with the links of an endless revolving chain, which carries them successively into contact with the grass or grain to be cut, substantially as herein described, whether the cutters be contiguous or placed at intervals upon the chain.

2. Making one end of each cutter sharp, in order that by pressing against the adjacent end of the next cutter, straw, grass, or other intervening obstructions may be cut in two and allowed to pass out, the cutters thus freeing themselves from obstructions which might otherwise choke or break them.

3. Placing the bundles or sheaves of grain at right angles to the path of the machine by means of a second rake, H, combined with the first, substantially as herein set forth.

4. Moving or turning the first rake by cords, chains, or belts, arranged and operated as described or in any other substantially similar manner.

5. Vibrating the second rake, H, and turning its teeth, as herein set forth, whether the devices employed to effect these movements be such as described or others equivalent thereto.

6. Changing the frequency of the alternations of the rakes by means of the cones of wheels 3 4 5 and pinions 3' 4' 5', or other equivalent device, for the purpose of varying the size of the sheaves, as herein set forth.

In testimony whereof I have hereunto set my hand.

NELSON PLATT.

Witnesses:

P. H. WATSON,

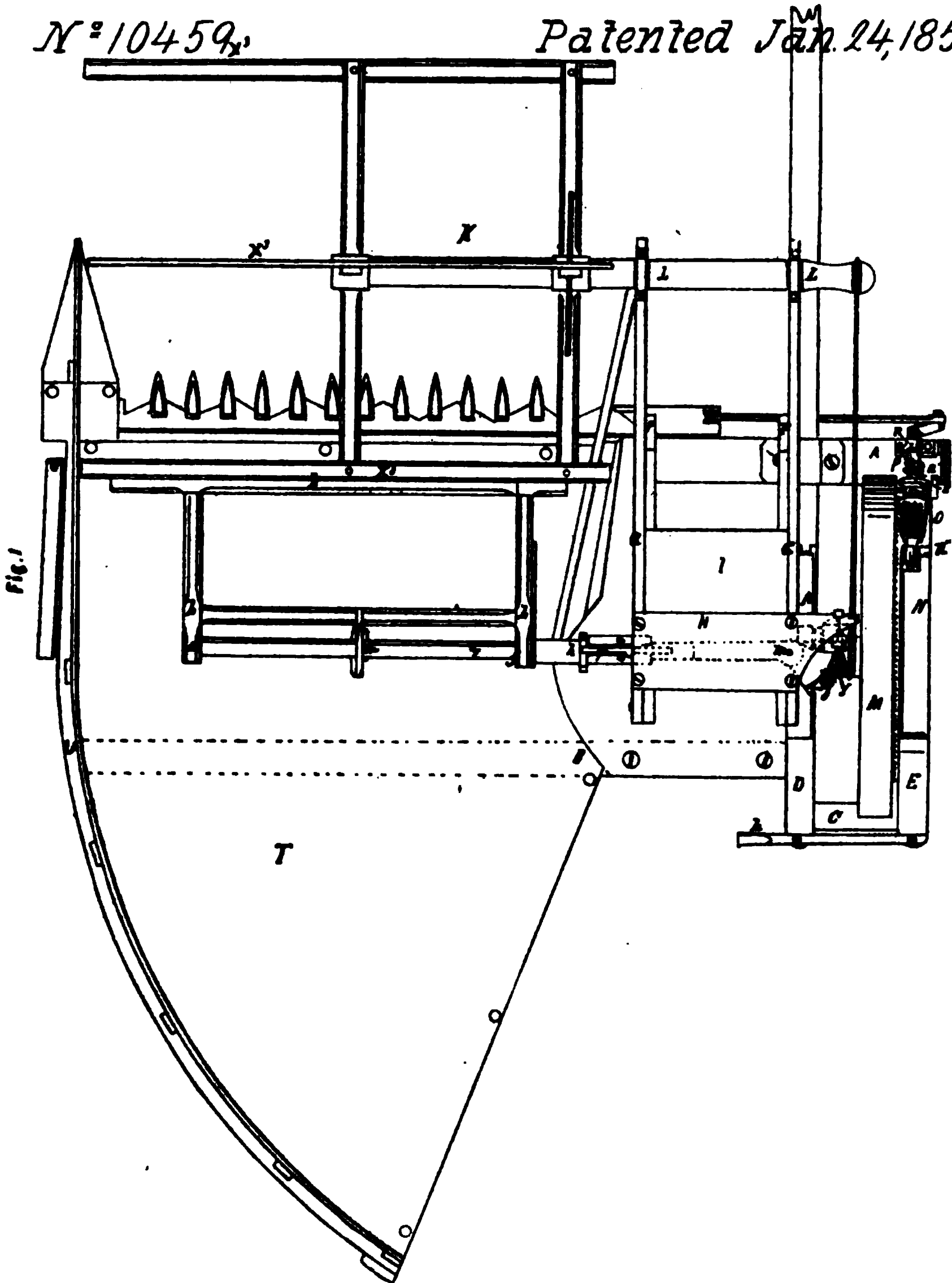
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Palmer & Williams.

Harvester Rake.

N^o 10459.

Patented Jan. 24, 1854.



Sheet 2 - 3 Sheets

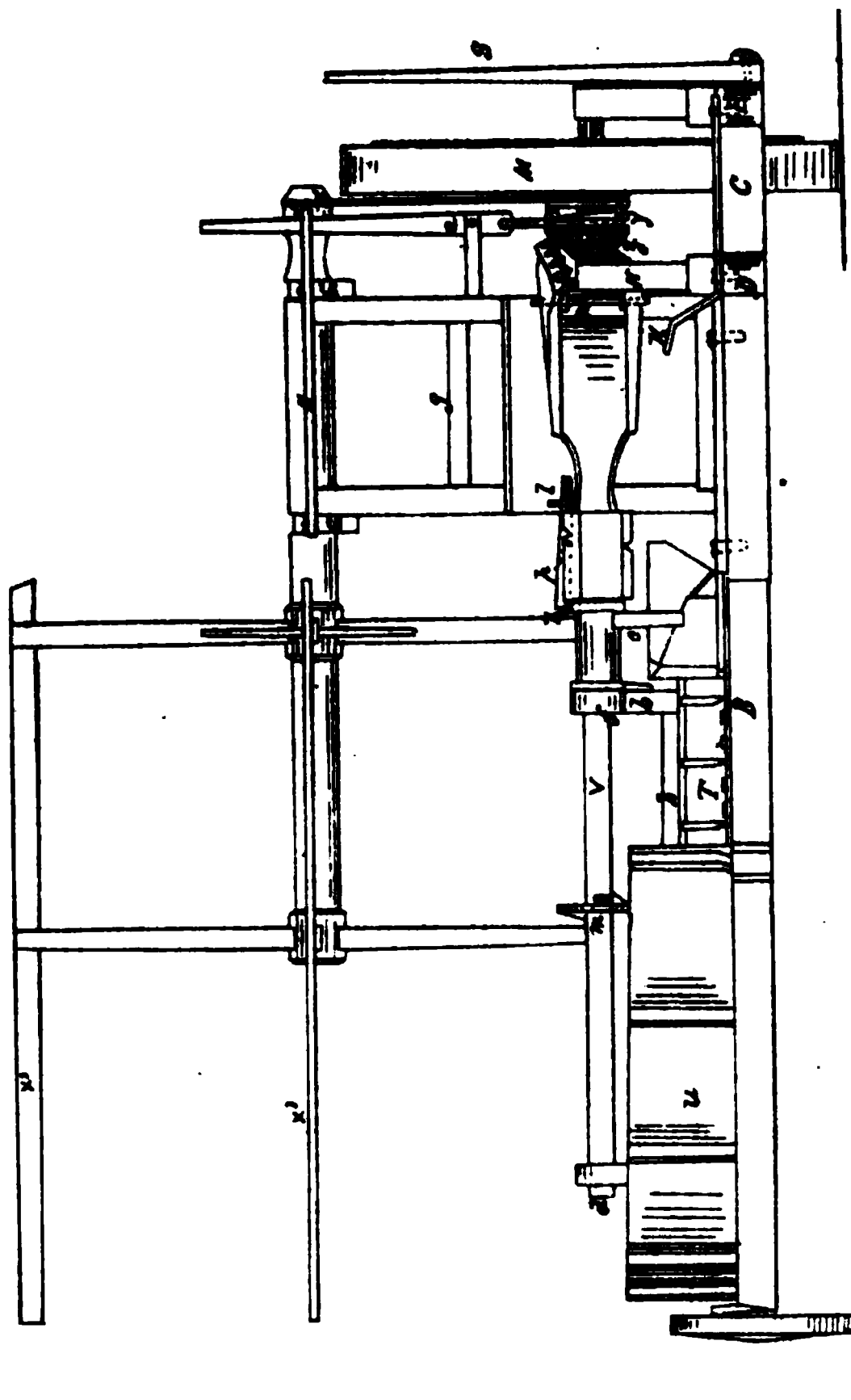
Palmer & Williams.

Harvester Rake.

N^o 10459

Patented Jan. 24, 1854

Fig. 4

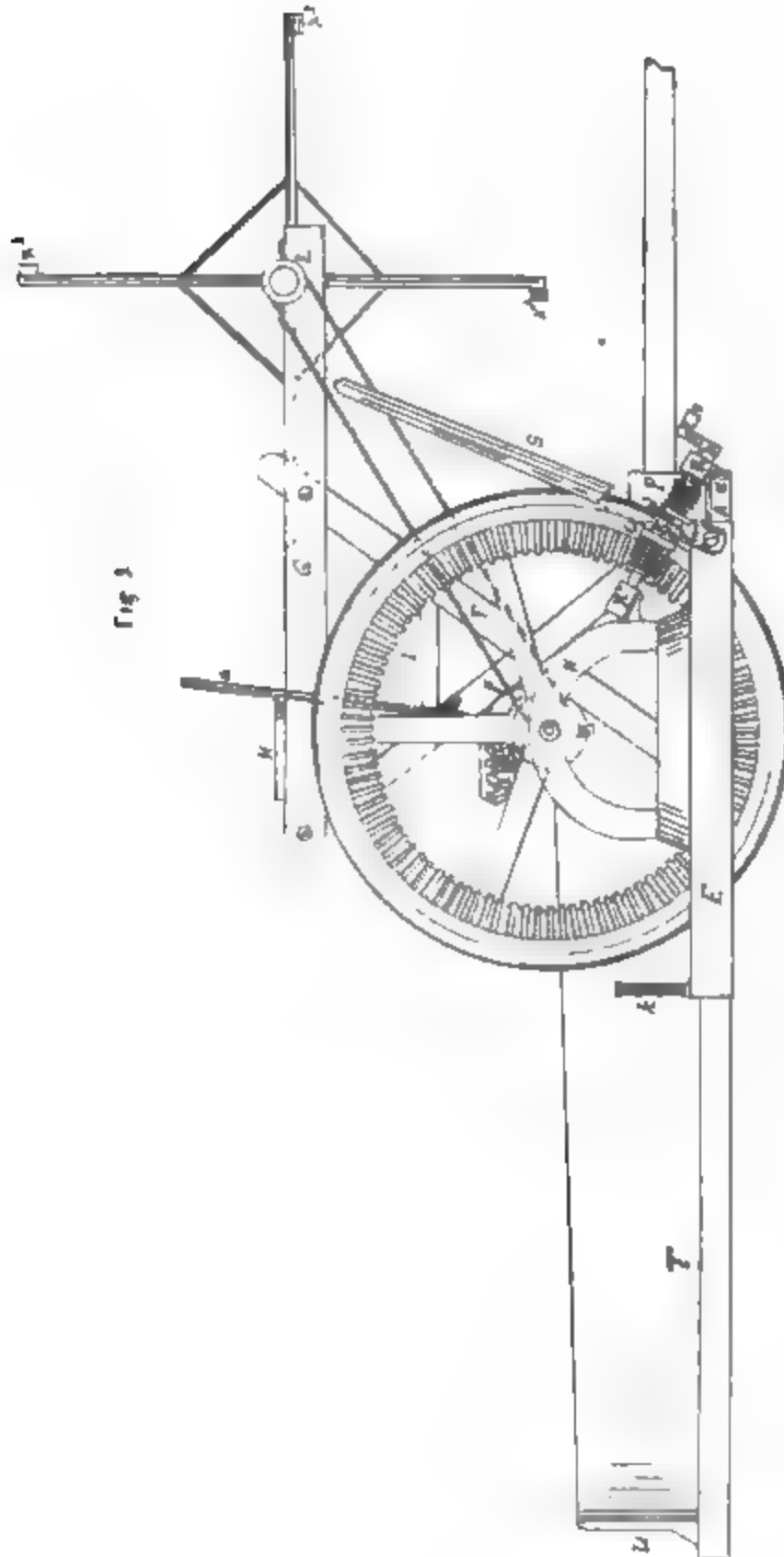


Palmer & Williams.

Harvester Rake.

N^o 10459

Patented Jan. 24, 1854.



Statement of the case.

AARON PALMER, OF BROCKPORT, NEW YORK,
AND STEPHEN G. WILLIAMS, OF JANESVILLE,
WISCONSIN.

IMPROVEMENT IN GRAIN-HARVESTERS.

Specification forming part of Letters Patent No. 10,459, dated
January 24, 1854.

To all whom it may concern :

Be it known that we, Aaron Palmer, of Brockport, in the county of Monroe and State of New York, and Stephen G. Williams, of Janesville, in Rock county and State of Wisconsin, have invented a new and useful Improvement on the Harvesting Machine or Reaper ; and we do hereby declare that the following is a full and exact description thereof, reference being had to the accompanying drawings, making a part of this specification—

Fig. I being a top view of the entire machine. Fig. II is a rear elevation, and Fig. III is an end elevation.

Similar letters indicate like parts in all the figures.

The frame of our harvesting-machine or reaper is composed of the front piece, A, the parallel piece, B, and the end piece, C, and the transverse pieces D and E.

The driver's seat is composed of the pieces F F F F, crossing each other, so as to form an X, and the reel-bearers, G G, on which, at H, is a board for a seat, and at I is the foot-board.

The reel is made with a shaft nearly five feet long, with one set of arms projecting from the middle and another set from one end of the shaft at right angles. To these arms are attached ribs, X', running parallel with the shaft, and projecting beyond the end of the shaft nearly half their length, of which K is a top view of the reel. This reel has its bearings on the end of the reel-bearers at L L, and is parallel to the front piece, A, and revolves on its bearings by means of a bolt or chain connecting it with the hub of the main driving-wheel.

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The main driving-wheel M of the machine is placed between the transverse pieces, D and E, and between the front piece, A, and the end piece, C, of the frame, and has its bearings on the arch-supports NN arising from the transverse pieces, D and E. On the side of the main driving-wheel is a bevel-gear meshing into the pinion, O, which runs on the transverse crank-shaft, P, which has its bearings on the arch-support, N at R', and in a box on the front piece at R. This pinion runs loose on the crank-shaft, but has a ratchet formed on the largest end, which receives a corresponding ratchet, which is connected to the shaft by a key or feather, and is slid out and into gear by the lever S.

T is a curved platform for receiving the stalks and heads of grain as they are severed by the cutting apparatus, and is in form a sector of a circle.

The cutting apparatus is on the front edge of a platform, and may be constructed in any well-known or usual manner, and is operated by the crank on the end of the crank-shaft, P.

A straight guard is placed on the inner side of the platform, and is fastened to the platform near the driver's seat. The curved guard U arises from the outer edge of the platform, T, to guide the grain as it is raked off.

V is the operating-lever, vibrating on the center of a circle of which the platform T forms a sector. At one end of this lever are attached two sets of the segments of a bevel-wheel, one on the lower and the other on the upper side of the lever, and one of which passes above and the other below one of the arch-supports, N. The pin W passes through these segments and the arch-support, N, and forms the fulcrum on which the lever turns. A corresponding set of bevel-wheels are placed on the shaft of the main driving-wheel, so as to mesh into these segments, and so arranged that as soon as one set of cogs cease to operate the other set commences, and thus carries the lever alternately backward and forward. The ratchet-ring Y is connected with

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the bevel-wheels Z by means of a key or feather, and slides freely backward and forward on their hub, and connects with a corresponding ratchet on the hub of the main driving-wheel, and is thrown in and out of gear by the person driving the team by means of the lever, *a*, so as to regulate the size of the gavels, whether in heavy or light grain. *b b* is the rake and rake-frame, with the iron arm *c* attached on one side and the joint *d* formed by a hole in the arm at the other side. The operating-lever passes through the holes *a* and *f*, allowing the rake-frame to operate freely on the lever. A mortise is made on the upper edge of the iron arm at *h*, into which the spring-latch falls when the rake-head is up. As the operating-lever is carried back the iron arm *c* strikes the foot-piece, *k*, and the rake-head is carried up sufficiently high to pass over the next bundle of grain. The latch falls into the mortise, *h*, and holds it up as the rake is carried forward. The latch *p* passes under the wedge, *l*, and is raised out of the mortise when the rake-head falls. The teeth striking into the fallen grain are held firmly down by the spring, *m*, which causes an even pressure, whether the grain is heavy or light, in thick or thin layers, until it is drawn off the platform by the operation of the lever, V, and so on alternately.

The lever V may be operated by a crank, or by a combination of levers, instead of the bevel-gear. It will be perceived that the grain is discharged from the platform in such a position as to be entirely out of the way of the horses which draw the machine during their succeeding tour around the field, and that any number of acres can be cut before any of it is obliged to be bound or removed.

We do not claim the discharging the cut stalks and heads of grain from a platform by means of the combination of a rake with a lever, and the co-operation therewith of a series of teeth on the face of the main driving-wheel, and an inclined rail rising above the guard of the platform, as these are already secured to us by Letters Patent bearing date July 1, 1851; but

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We do claim—

1. The method of transferring motion to the rake on the platform from the driving-wheel by means of the double-curved rack and pinion on the axle of the driving-wheel, the iron arm *c*, latch *p*, and spring *m*, as herein described.

2. The method of hanging the reel so as to dispense with any post or reel-bearer next to the standing grain, as herein described, thereby preventing the grain from getting caught and being held fast between the divider and a reel-supporter.

AARON PALMER.

STEPHEN G. WILLIAMS.

Witnesses :

JOSEPH GANSON,

FREDK. LANDON.

WM. H. SEYMOUR, OF BROCKPORT, NEW YORK,
ASSIGNOR TO HIMSELF, DAYTON S. MORGAN,
AARON PALMER, AND S. G. WILLIAMS.

IMPROVEMENT IN REAPING-MACHINES.*

Specification forming part of Letters Patent No. 8,212, dated July 8, 1851; Reissue No. 1,005, dated July 10, 1860; Reissue No. 1,177, dated May 7, 1861.

To all whom it may concern :

Be it known that William H. Seymour, of Brockport, in the county of Monroe, and State of New York, did invent certain new and useful Improvements in Reaping-Machines, (for which Letters Patent were issued to him, dated July 8, 1851, and that said Letters Patent were surrendered by reason of a defective specification and reissued on the 10th day of July, 1860, to William H. Seymour, Dayton S. Mor-

*The drawings in this reissue are identical with those in Reissue No. 1,683. p. 323 *post*.

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gan, and Aaron Palmer, of said Brockport, and to Stephen G. Williams, of Janesville, in Rock county, and State of Wisconsin, as his assignees, and that said reissued patent was numbered 1,005;) and we do hereby declare that the following is a full, true, and exact description of said improvements, reference being had to the accompanying drawings, making a part of this specification, in which—

Fig. 1 represents a view in perspective of a reaping-machine to which said improvements are applied as it would appear to a spectator in the rear, on the stubble side thereof. Fig. 2 represents an isometrical view of what we term “a combination of boxes in one casting,” in which the gearing is mostly supported. Fig. 3 represents a view in perspective of the gearing-frame as it would appear to a spectator stationed at the point of the divider and looking toward the driving-wheel.

Previous to the date of the invention herein described, the discharge of the cut grain from the platform of a harvesting-machine was mainly accomplished in one of the three following ways, viz: first, by discharging it heads foremost directly in rear of the platform; secondly, by drawing or conveying it in a rectilinear path to the stubble or gearing side of the machine and there depositing it upon the ground; and, thirdly, by conveying it to one end of the platform, upon which the grain falls when cut, in a rectilinear path, and delivering it upon a secondary platform upon which the grain was swept around in a curvilinear path and discharged upon the ground at the side of the machine.

Some of the above operations have been effected by manual labor, some by automatic mechanism, and some by both of these means. The first of these methods is undoubtedly preferable for its simplicity and the ease with which the discharge of the grain is effected; but as the gavels fall directly into the path traversed by the team in cutting the next swath, they must necessarily be removed before the return of the machine. For this reason, when the grain is

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too wet or too green to bind, or hands are wanting to do the work in time, it becomes important to discharge the grain at the side of the machine and far enough removed from the standing grain to have room for the team to pass in cutting the next swath without treading on the gavels. This desideratum is attained to some extent by the second method above named, but not in a manner so practically successful as is desirable, for unless the gavel is swept from the platform by a very quick motion some of its parts are liable to touch the ground while the others are still upon the platform ; and as the former are at rest while the latter still partake of the forward movement of the machine, the gavel is liable to be scattered, or, as the farmers term it, the grain "straggles" so much as to interfere very seriously with the labors of the binders. The third of the above-mentioned methods, viz., that of discharging the gavels in a curvilinear path at the side of the machine—we regard as superior to all others in practical efficiency ; but the arrangements heretofore adopted for carrying out that object have not, in our opinion, been such as to accomplish the result sought to be attained in a satisfactory manner.

The invention claimed in this patent consists in constructing the platform, upon which the cut grain falls as it is cut, in the shape of a quadrant, or of a sector of a circle, and placing it just behind the cutting apparatus, and in such relation to the main frame that the grain, whether raked off by hand or by machinery located behind the cutting apparatus, can be swept around on the arc of a circle and dropped on the ground far enough from the standing grain to leave room for the team and machine to pass between the gavels and the standing grain, thereby obviating the inconvenience of taking up the grain as fast as it is cut.

In the accompanying drawings the improvement herein described is represented as applied to a reaping-machine having an automatic raking mechanism ; but it is obviously equally applicable to machines in which the grain is raked off by hand, the mode of operation in either case being sub-

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stantially the same. The said improvement is also equally applicable to machines in which the several parts—such as the main frame, driving-wheel, supporting-wheels, gearing, &c.—occupy somewhat different positions relatively to each other from those shown in the drawings, so long as the platform is quadrant-shaped, located immediately behind the cutting apparatus, and so arranged as to allow the grain to be discharged from the position in which it falls in the arc of a circle behind the driving-wheel and out of the path of the horses in cutting the next swath.

In the accompanying drawings, the main or wheel frame A is constructed of two pieces of timber framed parallel to each other, and connected by three girts—one in the rear of the driving-wheel and two in front. The tongue, B, to which the team is attached, is bolted to the front end of the inner side piece of the wheel-frame. The finger-beam C is attached to the inner side piece of the frame, A, directly under the axle of the driving-wheel, by means of a cast-iron bracket and bolts.

To the opposite end of the finger-beam C is attached the divider-piece, D, which extends about three feet back of it and about two and a half feet in front of it. A brace, *d*, extends from the back end of the wheel-frame A to the back end of the divider-piece, D. The reel-bearer E is supported by the posts, F and G, which extend up from the divider-piece, D. The reel-bearer extends in front of the reel-posts F about three feet, and has one end of the reel-shaft hung upon its front end. The divider-board H is made fast to the front end of the divider-piece. It is also secured to the reel-post F about two feet above the divider-piece.

The seat I for the operator is constructed of four braces extending up from the wheel-frame, A—one from each corner of the frame—forming two triangles parallel to each other, to the top of which a seat is attached. The foot-board J is bolted to these braces.

The reel-post, K, the lower end of which is inserted into

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a mortise in the inner side piece of the frame, A, near its front end, passes up by the side of the diagonal brace, L, to which it is attached by a bolt passing through a slot in it, and also through one in the brace. This post, to the upper end of which one end of the reel-shaft is hung, is supported in this manner to admit of its being raised and lowered to vary the height of the reel. A guard-board, M, extends from the tongue B to the finger-beam, C, for the purpose of bringing the grain to the sickle. A brace of three-fourths inch round iron extends from the tongue to the finger-beam, C, directly under the guard-board.

The driving-wheel N (three feet or more in diameter) is of cast-iron, but might be made of wood, and is hung on an axle that has its bearings of cast-iron bolted upon the upper side of the frame, A. An internal spur cog-wheel, O, is cast upon the arms of the driving-wheel. A pinion, O', which is hung on a transverse shaft, O'', that has its bearings attached to the cast frame, P, in the manner hereinafter described, meshes into the spur-wheel, O. A bevel-wheel, O'', about one foot in diameter, is hung on this shaft and meshes into a bevel-pinion, O'', hung on a vertical crank-shaft, O'', that has its upper bearing in a box supported in the cast frame, P, and its lower bearing in a step bolted upon the inner side piece of the frame A.

The combination-box or cast frame, P, Fig. 2, in which the gearing is mainly hung, has a long broad base, and is bolted to the inner side piece of the frame A. Near the back end of the base is an elevation of six or eight inches, to the back part of which is bolted another piece of casting, and thus two boxes are formed—one above the other—for the inner end of the axle of the driving-wheel, which axle is shifted from one to the other of these boxes to vary the height of the cut. There is another elevation at the front end of the base, corresponding in height nearly with the one at the back end, and the upper plate of said cast frame or combination-box extends from one of these elevations to the other, as shown at h, Fig. 2, and is made broader

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than the base or elevation, so as to project beyond them, as shown at 3, Fig. 2. Near the center of this upper plate there is a slot made, in which the bevel-wheel is placed, its shaft being supported at each end by bearings on this plate. The upper crank-box, 4, is bolted to the inner side of this plate directly under the bevel-wheel box, *f*. By this arrangement of the gearing it is more compact than it could otherwise be made, and admits of a pitman-rod of sufficient length being used, without the necessity of widening the machine to make room for the pitman-rod, which would have to be done were the gearing not thus compactly arranged.

The mechanism may be thrown into or out of gear at will by means of a disconnecting lever, *p*, Fig. 3, which operates a sliding clutch on the shaft, *O*².

The sickles *e e e* are attached to the crank by means of a rod or pitman one and a half feet long, which gives the sickles a quick vibratory motion. The crank is two inches in length, and gives the sickles a stroke of four inches.

There is a pulley, *O*⁶, four and a half inches in diameter on the inner end of the bevel-wheel shaft, and another pulley, *O*⁷, of nineteen inches in diameter on the reel-shaft in range with it, over which pulleys runs a belt that gives motion to the reel.

The guard-teeth, *o o o o*, eighteen in number, more or less, are six inches long, made of cast-iron, and attached to the finger-beam *C* by means of wood-screws. These guard-teeth have slots through them, through which the sickle vibrates, which slots are enlarged back of the sickle to prevent clogging.

The side of the machine opposite the driving-wheel is carried on a wheel two and a half feet in diameter, the axle of which slides vertically in guides secured upon the post *F*, in which guides it is raised or lowered by means of a rack and pinion, *F*¹.

The platform, *Q*, instead of being made of a square form,

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and extending back of the sickle only three or four feet, as heretofore, is extended back in a circular form, as shown in the drawings, so that the grain, instead of being raked off behind the machine, as heretofore, making it necessary to take up each swath as it is cut, is swept off on a circle, and dropped far enough from the standing grain to be out of the way of cutting the next swath, thereby obviating the necessity of taking up each swath before another can be cut.

The guards Z Z' prevent the grain from falling off the platform and from becoming entangled in the gearing.

The drawings also represent the machine as having an automatic rake; but a detailed description of said rake is deemed unnecessary here, as it forms no part of the subject matter herein claimed, and is, besides, fully set forth in Divisions A and B of the original patent hereinbefore mentioned, for which Letters Patent were issued on the 10th day of July, 1860.

The operation of the machine is as follows: As the wheels revolve, the gearing is put in motion, and the stalks are severed by the cutting apparatus and swept backward upon the platform by the reel. They are then swept around upon the platform on an arc of a circle and discharged heads foremost upon the ground at the side of the machine, behind but somewhat inside of the driving-wheel, and out of the path of the horses in cutting the next swath.

What is claimed under this patent, and for which Letters Patent are desired, is—

A quadrant-shaped platform arranged relatively to the cutting apparatus, substantially as herein described, for the purpose set forth.

WM. H. SEYMOUR.
D. S. MORGAN.
AARON PALMER.
S. G. WILLIAMS.

Statement of the case.

Witnesses as to signature of Wm. H. Seymour, D. S. Morgan, and Aaron Palmer :

GEO. H. ALLEN,

WILLIAM STOUGHTON.

Witnesses as to signature of S. G. Williams :

G. H. BENHAM,

T. S. PADDOCK.

WM. H. SEYMOUR, OF BROCKPORT, NEW YORK,
ASSIGNEE, BY MESNE ASSIGNMENTS, TO DAY-
TON S. MORGAN, OF SAME PLACE.

IMPROVEMENT IN REAPING-MACHINES.

Specification forming part of Letters Patent No. 8,212, dated July 8, 1851; Reissue No. 1,003, dated July 10, 1860; Reissue No. 1,683, dated May 31, 1864.

To all whom it may concern :

Be it known that I, William H. Seymour, of Brockport, in the county of Monroe, and State of New York, have invented new and useful Improvements in Reaping-Machines for Cutting all Kinds of Small Grain ; and I do hereby declare that the following is a full and exact description of the construction and operation of the same, reference being had to the annexed drawings, making a part of this specification, in which—

Figure 1 represents a view in perspective of a reaping-machine to which my improvements are applied as it would appear to a spectator in the rear and on the stubble side thereof. Fig. 3 represents a similar view of the gearing-frame as it would appear to a spectator stationed at the point of the divider and looking toward the driving-wheel ; and Fig. 2 represents an isometrical view of what I term a “combination of boxes in one casting,” in which the gearing is mostly supported.

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The first part of the invention, which constitutes the subject-matter of this patent, consists of the combination, in a harvesting-machine, of the following three members, viz: first, a cutting apparatus composed of a finger-beam, with its fingers and cutter; second, a reel to bear the grain against said cutting apparatus and insure its delivery upon a platform in the rear thereof; third, a quadrant-shaped platform in the rear of the cutting apparatus, with its delivery side arranged, substantially as hereinafter described, at an angle to the finger-beam, so that the grain cut by the cutting apparatus and compelled by the reel to fall backward upon the platform can be moved from the cutting apparatus head foremost, swept round in a curve, and discharged upon the ground crosswise to the direction of the swath and out of the track of the horses when cutting the succeeding swath.

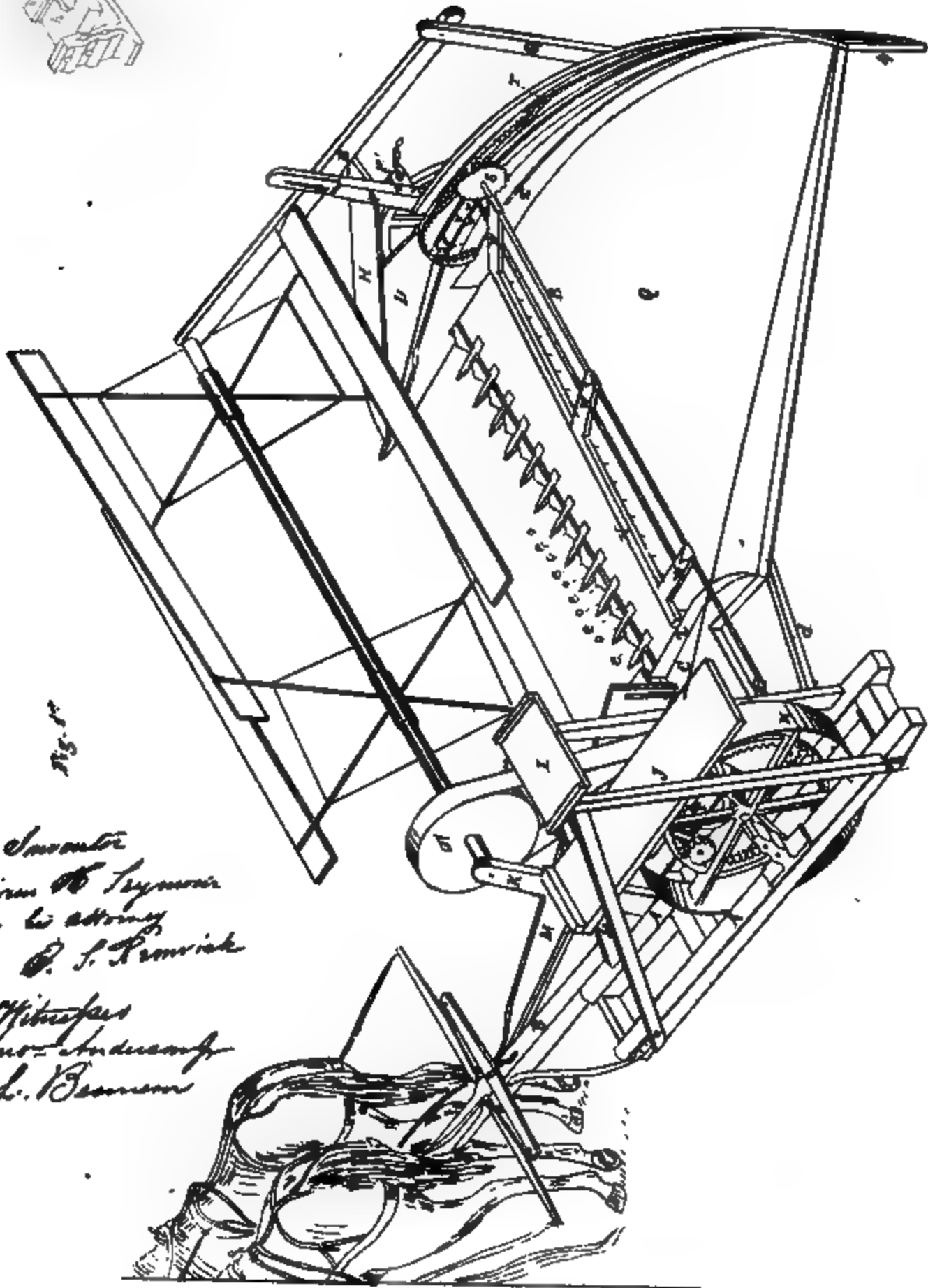
The second part of the invention consists of the combination, in a harvesting-machine, of the following members, viz: first, a cutting apparatus, as above specified; second, a quadrant-shaped platform, as above specified; third, a sweep-rake, or rake arranged to sweep in a circular curve over said platform when acting on the grain; fourth, mechanism for moving the same; fifth, devices for preventing the rake-teeth from rising out of the cut grain on the platform, so that when this part of my invention is used the cut grain falling upon the platform is delivered therefrom with certainty automatically head foremost and in circular curves.

A convenient arrangement of mechanism for carrying my invention into effect is shown in the accompanying drawings, which represent a harvesting-machine having an automatic rake and embodying the improvements which constitute the subject-matter of this patent, as well as others which are set forth more particularly in other patents expiring at the same date. The main or wheel frame A is constructed of two pieces of timber framed parallel to each other and connected by three girts, one in the rear of the

*W.H. Seymour,
Harvester-Rake.*

No 1683

Issued May 2, 1894



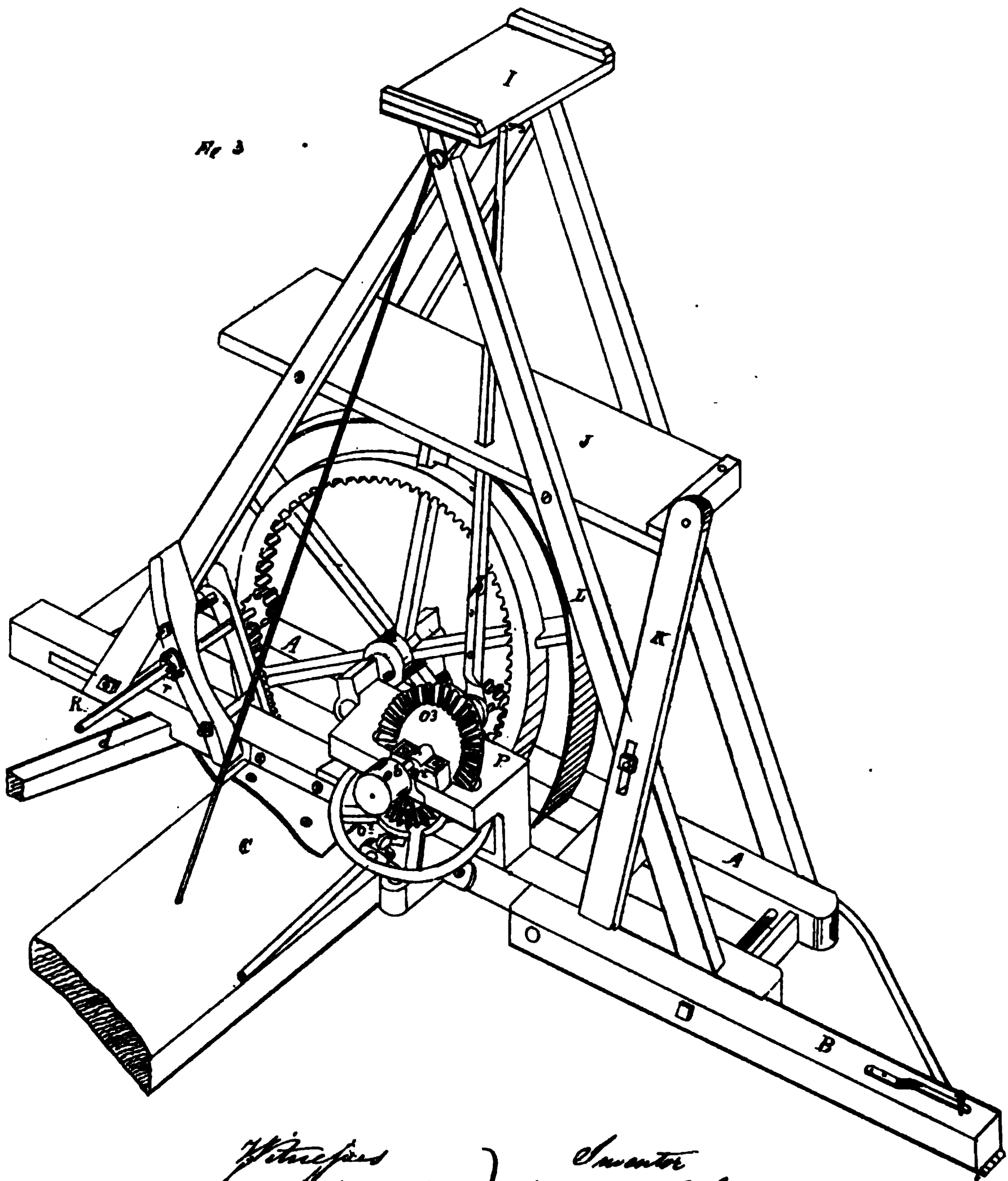
*Inventor
William H. Seymour
by his attorney
C. L. Remick
Witnesses
Geo. Anderson
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W. H. Seymour,
Harvester Reel.

No 1683

Patented May 4 1884

Fig 3



Witnesses
Anders Anderson Jr
W. L. Benson

Inventor
William H. Seymour
by his attorney
S. L. Herrick

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driving-wheel and two in front. The tongue B, to which the team is attached, is bolted to the front end of the inner side piece of the wheel-frame. The finger-beam or guard-piece C is attached to the inner side piece of the frame A, directly under the axle of the driving-wheel, by means of a cast-iron bracket and bolts. To the opposite end of the guard-piece C is attached the divider-piece D, which extends about three feet back of it and two and a half feet in front of it. A brace, *d*, extends from the back end of the wheel-frame A to the back end of the divider-piece D.

The reel-bearer E is supported by the posts F and G, which extend up from the divider-piece D. The reel-bearer extends in front of the wheel-post F about three feet, and has one end of the reel-shaft hung upon its front end. The divider-board H is made fast to the front end of the divider-piece. It is also secured to the wheel-post F, about two feet above the divider-piece. The seat I for the operator is constructed of four braces, extending up from the wheel-frame A, one from each corner of the frame, forming two triangles, parallel to each other, to the top of which the seat is attached. The foot-board J is bolted to three braces. The reel-post K, the lower end of which is inserted into a mortise in the inner side piece of the frame A, near its front end, passes up at the side of the diagonal brace L, to which it is attached by a bolt passing through a slot in it, and also through one in the brace. This post (to the upper end of which one end of the reel-shaft is hung) is supported in this manner to admit of its being raised and lowered to vary the height of the reel. A guard-board, M, extends from the tongue B to the guard-piece C for the purpose of bringing the grain to the sickle *e*. A brace of three-fourths-inch-round iron extends from the tongue to the guard-piece directly under the guard-board.

The driving wheel N (three feet or more in diameter) is of cast-iron, but might be made of wood, and is hung on an axle that has its bearings (of cast iron) bolted upon the upper side of the frame A. An internal spur cog-wheel,

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O, is cast upon the arms of the driving-wheel. A pinion, o' , which is hung on a transverse shaft, o'' , that has its bearings attached to the cast frame P in manner hereinafter described, meshes into this spur-wheel o . A bevel-wheel, o' , about one foot in diameter, is hung on this shaft, and meshes into a bevel-pinion, o' , hung on a vertical crank-shaft, o'' , that has its upper bearing in a box supported in the cast-iron frame P, and its lower bearing in a step bolted upon the inner side piece of the frame A.

The combination-box or cast frame P, Fig. 2, in which the gearing is mainly hung, has a long broad base, and is bolted to the inner side piece of the frame A. Near the back end of the base is an elevation of six or eight inches, to the back part of which is bolted another piece of casting, and thus two boxes are formed (one above the other) for the inner end of the axle of the driving-wheel, which axle is shifted from one to the other of these boxes to vary the height of cut. There is another elevation at the front end of the base corresponding in height nearly with the one at the back end, and the upper plate of said cast frame or combination-box extends from one of these elevations to the other, as shown at h , Fig. 2, and is made broader than the base or elevations, so as to project beyond them, as shown at 3, Fig. 2.

Near the center of this upper plate there is a slot made, in which the bevel-wheel is placed, its shaft being supported at each end by bearings on this plate. The upper crank-box, 4, is bolted to the under side of this plate directly under the bevel-wheel box f . By this arrangement of the gearing it is more compact than it could otherwise be made, and admits of a pitman-rod of sufficient length being used without the necessity of widening the machine to make room for the pitman-rod, which would have to be done were the gearing not thus compactly arranged. The mechanism can be thrown into or out of gear at will by means of a disconnecting-lever, p , which operates a sliding clutch on the driving shaft o' .

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The sickle *e e e* is attached to the crank by means of a rod or pitman one and a half feet long, which gives the sickle a quick vibrating motion. The crank is two inches in length and gives the sickle a stroke of four inches. There is a pulley, *o*^o, four and a half inches in diameter, on the inner end of the bevel-wheel shaft, and another pulley, *o*^o, of nineteen inches in diameter, on the reel-shaft, in range with it, over which pulleys runs a belt that gives motion to the reel. The reel is made and operated in the usual manner.

The guard-teeth or fingers *o o o o*, eighteen in number, (more or less,) are six inches long, made of cast-iron, and attached to the guard-piece or finger-beam *C* by means of wood-screws in their front edges and on their tops. These guard-teeth have slots through them, through which the sickle *e e e* vibrates, which slots are enlarged back of the sickle to prevent clogging. The side of the machine opposite the driving-wheel is carried on a wheel two and half feet in diameter, the axle of which slides vertically in guides secured upon the post *F*, in which guides it is raised or lowered by means of a rack and pinion, *F*.

The platform *Q*, instead of being made in a square form and extending back to the sickle only three or four feet, as heretofore, is of what I denominate a "quadrant" form—that is to say, that edge of it *q*, at which the grain is delivered forms a considerable angle with that edge of it, *p*^o, at which the grain is received, so that the grain, instead of being raked off behind the machine, making it necessary to take up each swath as it is cut, is swept off in a circular curve and dropped far enough from the standing grain to be out of the way of the team while cutting the next swath, thereby obviating the necessity of taking up each swath before another can be cut. That side of the platform which is nearest the standing grain is curved from the outer end of the cutting apparatus to the hinder edge of the delivery side, and is provided with a fence, *Z*^o, or guard, so as to prevent the escape of the cut grain and guide it along

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the platform to its delivery-edge. The other guard, Z, prevents the grain from escaping laterally from the side of the platform which is nearest the driving-wheel.

The grain is raked from the platform of the machine by means of a rake that is made to travel back and forth in the following manner: The rake consists of the head V, into which the teeth are inserted, the attachments W W W, the lower ends of which are firmly secured to the rake-head, the guide-rod X, passing through the attachments W W W parallel to the rake-head V, and about the center of the rake, and the lever-arm or rake-rod R, which extends horizontally across the platform and through the upper ends of the attachments W W W, so as to revolve freely therein.

A pinion, r , of twelve cogs, (may be more or less,) is secured upon the end of the rake-rod R, which pinion meshes into the internal spur-wheel o and causes the rod to revolve. This rod is provided with a universal joint, r' , a few inches from the pinion r . The short section of the rod, between the joint and the pinion is supported in horizontal transverse position with respect to the plane of the driving-wheel by bearings secured upon the wheel-frame A, the universal joint thus forming the center of motion of rake, as hereinafter more fully described. Another pinion, S, is secured on the rake-rod near its outer end, and is provided with cogs (or some irregular surface) to correspond with those of an endless rack, T, having internal teeth, in which it travels. This endless rack T has parallel sides and semi-circular ends, and it is to be made of the shape required to produce the desired motions of the rake, as hereinafter described. It is secured upon the outer or grain end of the platform, and is so curved that in its top view it forms the arc of a circle of which the universal joint r' forms the center and the rake-rod R the radius. This rod R also extends through the pinion S, and projects beyond it—say half an inch—in order that it may roll along the edge of the guide-plate U, which plate is secured

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in the center of the endless rack with its edges parallel to the sides thereof, and holds the pinion S in contact with the teeth of the rake in every part of its circuit, and also acts as a support to the outer end of the rake-rod.

The guide-rod X passes through one or more of the attachments W W W, and extends beyond the pinion S into the horizontal groove y in the center of the endless rack T, as well as in that of the guide-plate U. It also projects beyond the outer end of the rake-rod R, that it may at all times continue in the groove.

The operation of the machine is as follows: As it is drawn forward the grain in front of the machine is divided from the remainder by the divider at the outer end of the finger-beam and its heads are borne by the reel toward the cutting apparatus, which severs the stalks. The cut grain is compelled to fall backward upon the platform in the rear of the cutting apparatus by the continued action of the reel. As the platform is quadrant-shaped, it permits the cut grain to be moved backward head foremost from the cutting apparatus, swept around in a circular curve, and delivered at the angular side of the platform. In the present machine the movement of the grain on the platform and its delivery are effected by the automatic rake, which operates as follows: Suppose the parts to occupy the position shown in Fig. 1. As the machine advances the pinion r and rake-rod R are caused to revolve, which causes the pinion S to roll along from front to rear of the platform in contact with the teeth of the upper side of the endless rack T, against which it is held by the projecting end of the rake-rod R, which rolls along the upper edge of the guide-plate U, and which supports the outer end of the rake. The guide-rod X travels in the groove Y, and, as it is below the level of the pinion S, while the latter is in contact with the upper teeth of the rack, the points of the rake-teeth are held firmly down upon the platform while raking off the grain, which is swept around on an arc of a circle (of which the universal joint r' forms the center) and

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discharged heads foremost upon the ground, at the side of the machine, behind the driving-wheel, crosswise to the direction of the swath, and far enough removed from the standing grain to be out of the path of the team when the machine comes round in cutting the next swath. When the pinion S has arrived at the rear end of the rack T, which point is marked 4 in the drawings—that is, when the gavel has been discharged—it descends until the lower side of the rack is reached, when it begins to run forward, being held down upon the teeth of the rack by the lower side of the guide-plate *u*. As the pinion descends it passes below the level of the groove *y*, in which the guide-rod *x* travels, and as this rod forms the fulcrum of the rake its teeth are correspondingly elevated and held up until the pinion S reaches the limit of its forward motion, which point is marked 3 in the drawings. When the pinion S begins to ascend the curved end of the rack the guide-rod slips into a slot in the forward end of the rack, which slot forms a continuation of the groove *y*, and is of a depth sufficient to permit the pinion S to rise without obstruction from the guide-rod. As the pinion rises the rake-teeth are correspondingly depressed, the guide-rod X still forming the fulcrum, and by the time the pinion has reached the upper side of the endless rack the rake-teeth are firmly pressed toward the platform and prevented from rising out of the grain which may have been received thereon.

I have called the platform above described “quadrant-shaped” because it is a convenient name to indicate its form, and not because the platform has the form of an exact quadrant of a circular disk, for it will be noticed that as the center of the universal joint on which the rake moves is a little in the rear of the cutting apparatus the front portion of the platform is straighter than the corresponding part of a geometrical quadrant, while the delivery side of the platform *q'* is not at a right angle with the front edge thereof next the finger-beam. The triangular point

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of the quadrant is also removed as unnecessary. The precise form of the platform is not important so long as the same mode of operation is preserved, by which I mean so long as the platform is so shaped and arranged in the rear of the cutting apparatus that the grain received thereon can be moved from the cutting apparatus head foremost and in a curve, and discharged crosswise in the direction of the swath and out of the way of the team or the machine when cutting the succeeding swath. Neither is it a matter of necessity that the rake, the mechanism for operating it, and the devices for preventing its teeth from rising out of the grain should be constructed as represented in the drawings, provided their construction is such that their mode of operation is preserved—that is to say, provided the rake-teeth are compelled to sweep over the platform in circular curves while moving the grain, and are also prevented from rising from their proper positions over the platform at that time by mechanism substantially as described.

The operations of the other parts of the machine are so well known to those skilled in the art of constructing reaping-machines that any further description of them is deemed unnecessary here, especially as they form no part of the subject-matter herein claimed.

What I claim under this patent as my invention is—

1. The combination, in a harvesting-machine, of the cutting apparatus to sever the stalks with a reel and with a quadrant-shaped platform located in the rear of the cutting apparatus, these three members being and operating substantially as set forth.

2. The combination, in a harvesting-machine, of the cutting apparatus with a quadrant-shaped platform in the rear of the cutting apparatus, a sweep-rake, mechanism for operating the same, and devices for preventing the rise of the rake-teeth when operating on the grain, these five members being and operating substantially as set forth.

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In testimony whereof I have hereunto subscribed my name.

WILLIAM H. SEYMOUR.

Witnesses :

WILLIAM STOUGHTON,
GEO. H. ALLEN.

A. PALMER AND S. G. WILLIAMS, OF BROCKPORT,
NEW YORK, ASSIGNORS, BY MESNE ASSIGN-
MENTS, TO D. S. MORGAN, WM. H. SEYMOUR, S.
G. WILLIAMS, AND AARON PALMER.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 8,192, dated July 1, 1851 ; Reissue No. 305, dated April 10, 1855 ; Reissue No. 1,109, dated January 1, 1861.

To all whom it may concern :

Be it known that we, Aaron Palmer, of Brockport, in the county of Monroe, and State of New York, and Stephen G. Williams, formerly of the same place, but now of Janesville, in the county of Rock, and State of Wisconsin, have invented a new and Improved Harvesting Machine ; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making part of the specification, in which—

Fig. 1 represents a view in perspective of a harvesting machine to which our improvements are applied ; and Fig. 2, a similar view of the driving-wheel and a portion of the vibrating arm or lever which carries the rake, showing more particularly the mechanism by which the latter is operated.

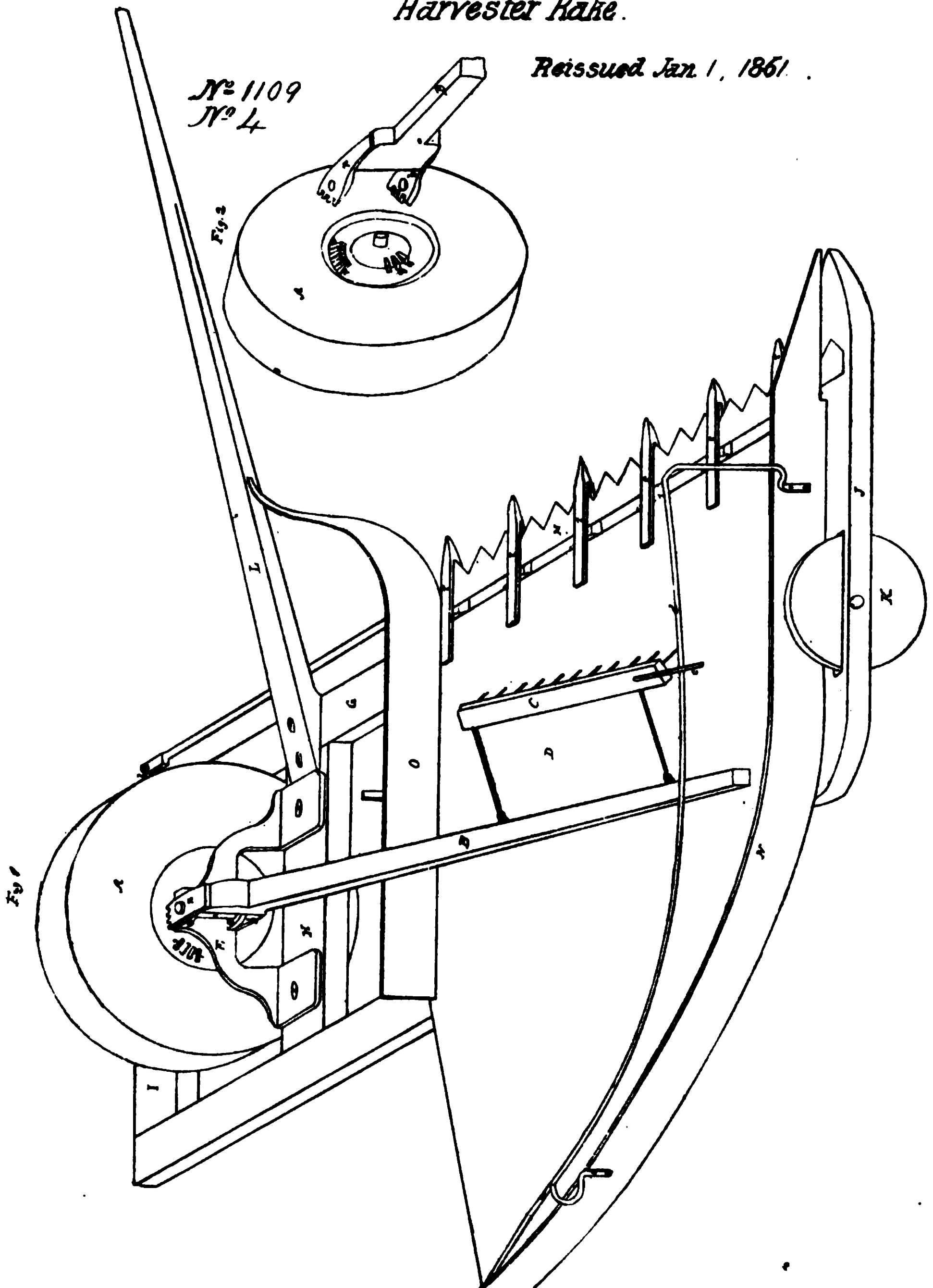
The invention claimed under this patent consists in arranging an automatic sweep-rake in such relation to a quad-

Palmer & Williams.
Harvester Rake.

Reissued Jan. 1, 1861.

N^o 1109
N^o 4

Fig. 2



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rant-shaped platform, upon which the grain falls as it is cut, that it shall vibrate over the same at suitable intervals to discharge the cut grain upon the ground.

The accompanying drawings represent a convenient arrangement of parts for carrying out the object of our invention.

The frame is composed of three longitudinal beams, H I J, and two transverse beams, F G, the whole being securely fastened to each other at their points of intersection. The main or driving wheel A is placed between the outer longitudinal beam, I, and the central beam, H, and has its bearings in arched supports or brackets E, rising from each of these beams.

Guard fingers t, through which a sickle, M, vibrates, are secured upon the front edge of a platform, D, upon which the heads and upper portion of the stalks of grain fall as they are severed by the cutting apparatus, which may be constructed and operated in any suitable manner. This platform is shaped like a quadrant or sector of a circle, of which the arm or lever which carries the rake-head forms the radius, and the fulcrum-pin on which said lever vibrates the center, in order that the grain may be swept round on an arc of a circle and be discharged upon the ground behind the driving-wheel. A tongue for the team to draw by is secured rigidly to the frame in line with the central beam, H, and projects forward at a right angle, or thereabouts, to the front edge of the frame. A fence or guard, O, which may either be made straight or curved to correspond with the sweep of the inner end of the rake, arises from the inner edge of the platform and prevents the grain from falling off or becoming entangled in the gearing. The front end of this guard may also be curved outward and secured to the tongue, and thus act as a guide to bring the grain in toward the cutting apparatus. A curved fence or guard, N, rises from the outer edge of the platform, with which it corresponds in curvature, and serves to prevent the grain from being deflected from its

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path or thrown from the platform by the centrifugal force generated by the vibrating movements of the rake.

The vibrating arm or lever B, which carries the rake, has lugs or projections *n b* secured upon the upper and lower sides of its inner end, on each of which lugs cogs or teeth are arranged, so as to form a rack. These plates embrace brackets or ears *e e*, projecting horizontally from the wheel-support E, and are held in place by a fulcrum-pin, S, which passes through both ears and lugs. This fulcrum-pin thus serves not only to hold the arm or lever B in a horizontal position without support at its outer end, but also forms the center of motion on which it vibrates freely over the platform. This arm or lever is vibrated by means of teeth or cogs secured upon the inner face of the driving-wheel in such manner as to form segments of a pinion, as shown in Fig. 2. The teeth *q* of the segment which gears into the rack on the lower lug, *b*, of the arm or lever B are placed nearer to the axis of the driving-wheel than the teeth *p* of the segment which gears into the rack of the upper lug, *n*, of the lever. This arrangement is necessary in order that each segment of a pinion or set of teeth may gear only with its own rack. The teeth *q* of the inner segment project outwardly, while those *p* of the outer set project inwardly.

The rake-head C, into which the rake-teeth are inserted, may be connected to the operating-lever B by any suitable hinge or joint that will allow it the proper degree of vertical play. A guide-rod, *c*, projects from the outer end of the rake-head in the same axial plane, for a purpose hereinafter explained. A guide-rail, *d*, which slopes gradually from front to rear of the machine, is supported above the outer frame, N, with which it conforms in curvature, by means of brackets *d' d''*, curved outwardly, to permit the end of the guide-rod *c* to travel beneath the guide-rail when running backward. A short section of the rear end of the rail *d* is hinged, so as to form a joint or gate, *f*, capable of moving vertically on its pivot, the rear end of which section rests upon the guard N. A guard-rail, *g*,

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having an upward inclination, surmounts the after end of the guard N. The outer or grain end of the machine is supported by a wheel, *k*, having its bearings in the outer longitudinal beam, J.

The operation of the machine is as follows: As the wheel to which the gearing is attached travels over the ground the machinery is set in motion, and the cutters sever the standing grain, which falls upon the platform. Suppose the rake to occupy the position shown in Fig. 1—that is, to be running forward. When in this position the teeth *q* are in gear with the rack *b*, and the rake-head C is held above the falling grain by the guide-rod *c* on its outer end sliding upon the inclined guide-rail *d*. The continued rotation of the driving-wheel causes the lever B (which always vibrates in the same horizontal plane) to push the rake before it until the guide-rod *c* has passed beyond the front end of the guide-rail *d*, when the rake drops suddenly upon the platform, its teeth striking into the butts of the fallen grain as it lies thereon. By this time the teeth *q* have escaped from the rack *b*, and the forward movement of the rack ceases. The two sets of teeth *p* and *q* are arranged upon the face of the driving-wheel in such relation to each other that the moment the latter escapes from the lower rack, *b*, of the vibrating arm the former engage with the upper rack, *n* and reverse the motion of the lever. The rake then travels backward (describing an arc of a circle of which the fulcrum-pin S forms the center and the operating lever B the radius), drawing the grain with it, and discharges it heads foremost upon the ground behind the machine, with its stalks at right angles, or thereabout, thereto, and sufficiently removed from the standing grain to be out of the path of the team during their succeeding tour around the field. As the rake approaches its extreme rearward point the guide-rod *c* lifts the jointed rod *f* and passes beyond it, when the jointed rod immediately resumes its former place. The guard-rod *g* on the rear of the guard N prevents the rake from going back so far as to

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drop off the end of the guard. The teeth *p* and *q* are so arranged upon the driving-wheel that when the backward movement of the rake has ceased (by reason of the teeth *p* escaping from the upper rack *n*), the teeth *q* do not immediately engage with lower rack, *b*, to start the rake forward, but the rake remains at rest while the driving-wheel makes about two-thirds of a revolution, by which means a sufficient pause is made to allow a quantity of grain sufficient to form a gavel to accumulate upon the platform. The rake then begins its forward movement, the guide-rod *c* now sliding on the inclined guide and elevating the rake-head until it reaches the front edge of the platform, when the rake falls and the operations above described are repeated.

By this description, then, it will be seen that the operation of the rake is such that it runs rapidly forward (rising as it goes to pass over the fallen grain), drops suddenly upon the platform, at once begins to move quickly back (drawing the grain off on an arc of a circle and discharging it behind the driving-wheel) until it reaches the termination of its backward movement, pauses a moment for a gavel to accumulate, and then moves rapidly forward, as before.

What we claim under this patent as our invention is—

Discharging the cut grain from a quadrant-shaped platform, on which it falls as it is cut, by means of an automatic sweep-rake sweeping over the same, substantially as described.

In testimony whereof we have hereunto subscribed our names.

AARON PALMER,
STEPHEN G. WILLIAMS.

Witnesses:

T. H. SPARROW,
D. S. MORGAN.

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A. PALMER, OF BROCKPORT, NEW YORK, AND
STEPHEN G. WILLIAMS, OF JANESVILLE, WIS-
CONSIN, ASSIGNORS TO DAYTON S. MORGAN
AND WM. H. SEYMOUR, OF BROCKPORT, N. Y.

IMPROVEMENT IN HARVESTERS.*

Specification forming part of Letters Patent No. 8,192, dated July 1, 1851 ; Reissue No. 5, dated January 1, 1861 ; Reissue No. 1,682, dated May 31, 1864.

To all whom it may concern :

Be it known that we, Aaron Palmer, of Brockport, in the county of Monroe and State of New York, and Stephen G. Williams, formerly of the same place, but now of Janesville, in the county of Rock, and State of Wisconsin, have invented certain new and useful improvements in harvesting machines ; and we do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings, making a part of this specification, in which—

Fig. 1 represents a view in perspective of a harvesting machine to which our improvements are applied ; and Fig. 2, a similar view of the driving-wheel and a portion of the arm or lever which carries the rake, showing more particularly the mechanism by which the latter is operated.

The object of the invention claimed under this patent is to discharge the grain from the platform on which it falls as it is cut by sweeping it automatically from said platform in curved lines, heads foremost, and delivering it upon the ground with the stalks crosswise to the direction of the swath, and out of the track of the horses when cutting the succeeding swath.

To this end our invention consists, first, of the combination, in a harvesting machine, of the following members,

*The drawings in this reissue are identical with those of Reissue No. 1,109, p. 336, *ante*, and that the letter F of the frame and c for the guide rod projecting from the outer end of the rake head.

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viz: the cutting apparatus to sever the stalk of grain, a quadrant-shaped platform arranged behind the cutting apparatus to receive the stalks of grain as they fall after cutting, a sweep-rake, and mechanism to operate the rake in such manner that its teeth are caused to move in circular curves over the platform when they are acting on the grain.

The second part of the invention consists of the combination in the harvesting machine, of the following members, viz: a quadrant-shaped platform, a sweep-rake, mechanism which causes the said rake to move alternately in opposite directions or vibrate, an inclined guide-rail to raise the rake when it is moved forward, and a gate or switch to cause the rake to be acted upon by said rail.

The accompanying drawings represent a convenient arrangement of parts of a harvesting machine for carrying out the object of our invention.

The frame is composed of three longitudinal beams, H I J, and two transverse beams, F G, the whole being securely fastened together at their points of intersection. The main or driving wheel A is placed between the outer longitudinal beam, I, and the central beam, H, and has its bearings in arched supports or brackets E rising from each of these beams.

Guard-fingers *l*, through which a sickle, M, vibrates, are secured upon the front edge of a platform, D, upon which the heads and upper portions of the stalks of grain fall as they are severed by the cutting apparatus, which may be constructed and operated in any suitable manner. The platform resembles in shape a quadrant or sector of a circle (with the triangular point removed), of which the arm or lever which carries the rake-head forms the radius, and the fulcrum-pin on which said lever vibrates the center, in order that the grain may be swept round in an arc of a circle and be discharged upon the ground behind the driving-wheel. A tongue for the team to draw by is secured rigidly to the frame in line with the central beam, H, and projects for-

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ward at a right angle, or thereabout, to the front edge of the frame.

A fence or guard, O, which may either be made straight or curved to correspond with the sweep of the inner end of the rake, arises from the inner edge of the platform, and prevents the grain from falling off or becoming entangled in the gearing. The front end of this guard may also be curved outward and secured to the tongue, and thus act as a guide to bring the grain in toward the cutting apparatus. A curved fence or guard, N, rises from the outer edge of the platform, with which it corresponds in curvature, and serves to prevent the grain from being deflected from its path or thrown from the platform by the centrifugal force generated by the circular movement of the rake.

The arm or lever B, which carries the rake, has lugs or projections *n b* secured upon the upper and lower sides of its inner end, on each of which lugs cogs or teeth are arranged so as to form a circular rack or cog-segment. These lugs embrace brackets or ears *e e*, projecting horizontally from the wheel-support E, and are held in place by a fulcrum-pin, S, which passes through both ears and lugs. This fulcrum-pin thus serves not only to hold the arm or lever B in a horizontal position without support at its outer end, but also forms the center of motion on which it moves freely over the platform. This arm or lever is operated by means of teeth or cogs secured upon the inner face of the driving-wheel in such manner as to form segments of pinions, as shown in Fig. 2. The teeth *q* of the segment which gears into the rack on the lower lug, *b*, of the arm or lever B are placed nearer to the axis of the driving-wheel than the teeth *p* of the segment which gears into the rack of the upper lug, *n*, of the lever. The teeth *q* of the inner segment project outwardly while those *p* of the outer set project inwardly.

The rake-head C, into which the rake-teeth are inserted, is connected to the operating-lever B by hinge-joints that allow it the proper degree of vertical play. A guide-rod,

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c, projects from the outer end of the rake-head in the same axial plane for a purpose hereinafter explained. An inclined guide-rail, *d*, which slopes gradually from front to rear of the machine, is supported above the outer fence, *N*, with which it conforms in curvature, by means of brackets *d'* *d''*, curved outwardly to permit the end of the guide-rod *c* to travel beneath the guide-rail when running backward. A short section of the rear end of the rail *d* is hinged, so as to form a switch or gate, *f*, capable of moving vertically on its pivot, the rear end of which section rests upon the guard *N*. A guard-rail, *g*, having an upward inclination, surmounts the after end of the guard *N*. The outer or grain end of the machine is supported by a wheel, *K*, having its bearings in the outer longitudinal beam, *J*.

The operation of the machine is as follows: As the wheel to which the gearing is attached travels over the ground the machinery is set in motion and the cutters sever the standing grain, which falls upon the platform behind it with the heads of the stalks towards the rear of the machine. Suppose the rake to occupy the position shown in Fig. 1—that is, to be running forward. When in this position the teeth *q* are in gear with the rack *b*, and the rake-head *C* is held above the falling grain by the guide-rod *c* on its outer end sliding upon the inclined guide-rail *d*. The continued rotation of the driving-wheel causes the lever *B* (which always moves in the same horizontal plane) to push the rake before it until the guide-rod *c* has passed beyond the front end of the guide-rail *d*, when the rake drops suddenly upon the platform, its teeth striking into the butts of the fallen grain as it lies thereon. By this time the teeth *q* have escaped from the rack *b* and the forward movement of the rake ceases. The two sets of teeth *p* and *q* are arranged upon the face of the driving-wheel in such relation to each other that the moment the latter escape from the lower rack, *b*, of the lever *B*, the former engage with the upper rack, *n*, and reverse the motion of the lever. The rake then travels backward (describing an arc of a circle, of

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which the fulcrum pin S forms the center and the operating-lever B the radius), drawing the grain with it, and discharges it head foremost upon the ground behind the machine, with its stalks crosswise to the direction of the swath and sufficiently removed from the standing grain to be out of the path of the team during their succeeding tour around the field. As the rake approaches its extreme rearward point the guide-rod *c* lifts the switch *f* and passes beyond it, when the switch immediately resumes its former place. The guard-rod *g* on the rear of the guard N prevents the rake from going back so far as to drop off the end of the guard. The teeth *p* and *q* are so arranged upon the driving-wheel that when the backward movement of the rake has ceased, by reason of the teeth *p* escaping from the upper rack, *n*, the teeth *q* do not immediately engage with the lower rack, *b*, to start the rake forward, but the rake remains at rest while the driving-wheel makes about two-thirds of a revolution, by which means a sufficient pause is made to allow a quantity of grain sufficient to form a gavel to accumulate upon the platform. The rake then begins its forward movement, the guide-rod *c* now sliding on the inclined guide-rail and elevating the rake-head until it reaches the front edge of the platform, when the rake falls and the operations above described are repeated. By this description, then, it will be seen that the operation of the rake is such that it is moved to the front of the platform without interfering with the falling grain; then that its teeth are caused to sweep backward in circular curves over the platform, so as to remove the grain heads foremost therefrom, and to discharge it with the stalks crosswise to the direction of the swath, or the track pursued by the machine. The arrangement of the operating-lever B is such as to enable the gearing which moves it to be located at the stubble side of the platform and near one end of the cutting apparatus, where it is out of the way securely protected from dirt, stalks, &c., and close to its prime mover, while the lever which carries the rake moves di-

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rectly behind the cutting apparatus in the most favorable position for acting upon the grain as it falls upon the platform.

We have called the platform above described a "quadrant-shaped" platform because it is a convenient name to indicate its form, and not because it has the form of an exact quadrant of a circular disk, for it will be noticed that as the center of the fulcrum-pin on which the rake-lever moves is a little in the rear of the line of the cutting apparatus the front portion of the platform is straighter than the corresponding part of a geometrical quadrant, while the delivery side of the platform is not at a right angle with the front edge thereof at the cutting apparatus. The triangular point is also removed. The precise form of the platform is not important so long as the mode of operation is preserved, by which we mean so long as the platform is so shaped and arranged in the rear of the cutting apparatus that the grain received thereon can be removed from the cutting apparatus heads foremost and in a curve, and discharged therefrom crosswise to the direction of the swath and out of the way of the team or the machine when cutting the next swath. So, also, it is not necessary that the mechanism for operating the rake should be constructed as represented in the drawings in order to embody the first part of our invention, provided the rake be caused to operate in the same manner while its teeth are acting on the grain—that is to say, provided the rake-teeth are then caused to sweep over the platform in circular curves. Moreover, it is not necessary that the mechanism for operating the rake should be constructed as represented in the drawings in order to embody the second part of our invention, provided the rake be caused to move alternately backward and forward.

What we claim under this patent as our invention is—

1. The combination of the cutting apparatus of a harvesting machine with a quadrant-shaped platform arranged in the rear thereof, and a sweep-rake operated by mechan-

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ism in such manner that its teeth are caused to sweep over the platform in curves when acting on the grain, these parts being and operating substantially as hereinbefore set forth.

2. The combination of a quadrant-shaped platform, a sweep rake operated by mechanism which causes the rake to move in alternately opposite directions, an inclined rail to raise the rake, and a switch, these parts being and operating substantially as hereinbefore set forth.

In testimony whereof we have hereunto subscribed our names.

AARON PALMER,
STEPHEN G. WILLIAMS.

Witnesses as to Aaron Palmer :

GEO. H. ALLEN,
CHAS. W. PALMER.

Witnesses as to S. G. Williams :

I. B. DOE,
GEO. G. WILLIAMS.

Messrs. Geo. Gifford and E. W. Stoughton, for appellants.

The law respecting the necessary quantity of invention to sustain a patent is well settled, and has been ever since the first administration of the patent laws in England. There has been one unbroken line of decisions, to the effect that, if the thing invented be new, the quantity of invention employed to produce it cannot be measured from the appearance of the thing itself, but that the change made must be taken in connection with the usefulness of the thing produced by the change.

In the case of Crane's patent, which was for the use of anthracite and hot air blast in the manufacture of iron, in the place of bituminous coal and hot air blast, the English Court of Common Pleas said :

"We are of the opinion, that, if the result produced by such a combination, be either a new article or a better article or a cheaper article to the public than that produced

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before by the old method, such a combination is an invention or manufacture intended by the statute, and may well become the subject of a patent."

In the case of *Rex v. Arkwright*, Web. Pat. Cas. 71 [1 Am. & Eng. 29], Buller, J., said:

"If there be anything material or new which is an improvement of the trade, that will be sufficient to support a patent."

Mr. Curtis, in his book on patents, sec. 25, 3d ed., says:

"There are many cases where the materiality and novelty of the change can be judged of only by the effect on the result."

Mr. Curtis, after a full examination of the English cases, on the subject of the sufficiency of invention to support a patent, at section 39, concludes thus:

"It appears, then, according to English authorities, that the amount of invention, as being sufficient or insufficient to support a patent, may be estimated from a compound view of the change effected and the consequences of that change. The change alone may be very slight or, in point of fact accidental; yet, if it leads to consequences and results of great practical utility, and others above mentioned, the condition of a sufficiency of invention is satisfied."

The rule is the same in this country.

In *Furbush v. Cook*, 2 Fish. Pat. Cas. 668, it was held, Curtis, J.:

"If the patentee first made a new and useful combination, he is entitled to a patent for it."

It was also held in that case as follows:

"It is decisive evidence that a new mode of operation has been introduced if the practical effect of the new combination is either: a new effect or a materially better effect, or as good an effect more economically attained. And in such case it is not material how much study, thought, time, expense or experiment was required to make the change."

The action of the Commissioner of Patents in accepting a surrender of a patent and granting a reissue, is conclusive

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that the prerequisites to the surrender did exist unless fraud be shown.

Stimpson v. R. R. Co., 4 How. 380 [4 Am. & Eng. 398] ; *R. R. Co. v. Stimpson*, 14 Pet. 448 [4 Am. & Eng. 324] ; *Woodworth v. Stone*, 3 Story, 749, 753 ; *Allen v. Blunt*, 3 Story, 742, 743 ; *Carver v. Mnfg. Co.*, 2 Story, 432 ; *Goodyear v. Day*, 2 Wall., Jr. 283 ; *O'Reilly v. Morse*, 15 How. 112 [5 Am. & Eng. 483] ; *Battin v. Taggart*, 17 How. 84 [6 Am. & Eng. 243] ; *Allen v. Blunt*, 2 Wood. & M. 138 ; *French v. Rogers*, 1 Fish. Pat. Cas. 133.

In the case of *Woodworth v. Stone*, 3 Story, 749, and 2 Robb, Pat. Cas., Judge Story holds thus :

“I have already, in another cause, had occasion to decide that, where the Commissioner of Patents accepts a surrender of an old patent and grants a new one, under the act of 1836, ch. 357, his decision being an act expressly confided to him by law, and dependent upon his judgment, is not re-examinable elsewhere ; and that the court must take it to be a lawful exercise of his authority, unless it is apparent upon the very face of the patent that he has exceeded his authority, and there is a clear repugnancy between the old and the new patent, or the new one has been obtained by collusion between the Commissioner and the patentee.”

A patent may be valid, and may have been held so to be by a court, without being broad enough to cover the whole invention. In such cases the act of Congress tenders the patentee relief by reissuing to make his claim broader.

The statute does not limit the right to reissue to cases where the surrendered patent was void, but it expressly gives this right also where the patent is inoperative ; meaning, of course, inoperative to cover all the patentee has a right to.

Law, Am. Dig. 612, 616.

This has been repeatedly held, both by the Supreme Court and in the several circuits. In the case of *Goodyear*

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v. Day, 2 Wall., Jr. 283, in the District of New Jersey, the court expressed the principle in the following words :

“The mistake of claiming too little in the original patent, has an equal claim to correction with that of claiming too much.”

The decision in the Supreme Court in the case of *Battin v. Taggart*, 17 How. 83 [6 Am. & Eng. 242], is also in point.

To determine whether or not a patent is good as a reissue, the court will look to only two things : first, to what was the invention actually made by the patentee and made known in the original patent ; second, to what invention is covered by the patent which is sought to be enforced. The comparison of the court will be only between such invention and such patent, and when it finds that the patent is no broader than such invention, it will be found to be no broader than it ought to be. The comparison should not be between previous reissues nor between the existing patent and any previous reissue which has been surrendered, or between the original and any previous reissue which has been surrendered ; but it should be only between the existing reissue and the invention made by the patentee and made known in the original patent.

In the case of *French v. Rogers*, 1 Fish. Pat. Cas. 138, Judge Kane and Justice Grier held thus :

“The surrender and the reissue, no matter how often they recur, are reciprocal—each in consideration of the other—forming together but a single act.”

In an earlier case, that of *Sloat v. Spring*, Justice Grier, in charging the jury, said ;

“A difference in the description of these two patents does not, necessarily, make them describe different inventions as the inventor is authorized by law to correct, in the reissued patent, all the errors or deficiencies in the first, and make the second what he might have made the first.”

See, also, *O'Reilly v. Morse*, 15 How. 112 [5 Am. & Eng. 483].

A very early and leading case on the subject of prior in-

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ventions, was that of *Bedford v. Hunt*, 1 Mason, 302, which was contested by two very able counsel on each side, and was before the most distinguished judge of his time.

On this question Judge Story instructed the jury that—

“The first inventor who has put the invention in practice, and he only, is entitled to a patent.”

In speaking of the rights of the defendant he said:

“He may stand upon the defense, that the plaintiff is not the first inventor who put the invention in use.”

“The intent of the statute was to guard against defeating patents by the setting up of a prior invention, which had never been reduced to practice. If it were the mere speculation of a philosopher or a mechanic, which had never been tried by the test of experience, and never put into actual operation by him, the law would not deprive a subsequent inventor, who had employed his labor and his talents in putting it into practice, of the reward due to his ingenuity and enterprise.”

Much less would the law deprive him of his invention by virtue of a prior experiment, which proved only a failure.

See, also, *Reed v. Cutter*, 1 Story, 590; *Woodcock v. Parker*, 1 Gall. 438; *Washburn v. Gould*, 3 Story, 122; *Allen v. Blunt*, 2 Wood. & M. 121; *Curt. Pat.*, sec. 43.

In the case of *Parkhurst v. Kinsman*, 1 Blatchf. 488, 494, the court says:

“Crude and imperfect experiments, equivocal in their results, and then given up for years, cannot be permitted to prevail against an original inventor, who has perfected his improvement.”

Sickles v. Borden, 3 Blatchf. 535; *Hindm. Pat.*, ed. printed at Harrisburg, Pa., 1847, pp. 106–109.

Judge Leavitt, in the case of *Judson v. Moore*, 1 Fish. Pat. Cas. 544, tried in the District Court of Ohio in 1860, in charging the jury, said:

“Neither will experiments defeat, even if known to the patentee, if it appear that he prosecuted such experiments to final success.”

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See, also, *Allen v. Hunter*, 9 McLean, 321; *Foote v. Silsby*, 2 Blatchf. 266; *Howe v. Underwood*, 1 Fish. Pat. Cas. 160; *Sprague, J.*, 1854; *Ransom v. Mayor of N. Y.*, 1 Fish. Pat. Cas. 252, *Hall, J.*, 1856.

A leading case on this subject is that of *Cahoon v. Ring*, 1 Fish. Pat. Cas. 399, which was tried before Justice Clifford, in the District of Maine, in 1859. In that case the learned justice, in charging the jury and speaking of a machine set up against the patent, as a prior invention, said:

“Unless it appears to your satisfaction that such machine was actually used as a seed sower, in sowing seed for agricultural purposes, you are warranted in presuming that it was a mere experiment; and if so, you are instructed that it would not invalidate the plaintiff’s patent, provided Cahoon was an original inventor of his improvements, without knowledge of that machine, and did not derive any of them from Luce.”

Jones v. Pearce, 1 Web. Pat. Cas. 122 [1 Am. & Eng. 473].

Mr. D. Wright, for appellees:

Mr. Justice CLIFFORD delivered the opinion of the court:

Controversies respecting the infringement of letters patent possess, in many cases, a degree of importance much beyond the profits or damages claimed for the alleged unlawful use of the invention, as the pleadings usually put in issue, in one form or another, the validity of the letters patent alleged to be infringed, and frequently involve, directly or indirectly, the same inquiry in regard to the letters patent set up in defense as superseding the patent on which the suit is founded. Such being the state of the pleadings, the result, whatever it may be, whether for the party suing or for the party defending, must oftentimes determine rights of property of much greater value than the amount of the profits or damages claimed for the alleged infringement of the letters patent.

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Inventions secured by letters patent are property in the holder of the patent, and as such are as much entitled to protection as any other property, consisting of a franchise, during the term for which the franchise or the exclusive right is granted.

Letters patent are not to be regarded as monopolies, created by the executive authority at the expense and to the prejudice of all the community except the persons therein named as patentees, but as public franchises granted to the inventors of new and useful improvements for the purpose of securing to them, as such inventors, for the limited term therein mentioned, the exclusive right and liberty to make and use and vend to others to be used their own inventions, as tending to promote the progress of science and the useful arts, and as matter of compensation to the inventors for their labor, toil and expense in making the inventions, and reducing the same to practice for the public benefit, as contemplated by the Constitution and sanctioned by the laws of Congress.

Five several letters patent were owned by the complainants when the present suit was commenced, and they allege in the bill of complaint that the respondents have infringed their exclusive rights as secured to them in each and every one of those letters patent. Four of the letters patent are reissued letters patent, and are numbered and described as follows: (1) Reissued letters patent No. 4, dated January 1, 1861, for a new and useful improvement in harvesters, being one of a second reissue in two separate patents, on amended specifications, as more fully explained in the pleadings and the patents annexed to the printed record. (2) Reissued letters patent No. 1,682, dated May 31, 1864; also for a new and useful improvement in harvesters, being the second reissue from the before mentioned reissue when the invention was divided into two parts. They both purport to be founded upon the original patent granted to Aaron Palmer and Stephen G.

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Williams, dated July 1, 1851, which was for a new and useful improvement in harvesters, and the reissued patents were duly extended for seven years from the expiration of the original term.

(3) Reissued letters patent No. 72, dated May 7, 1861, being a reissue of one of three parts of a prior reissue of the original patent, dated July 8, 1851, which was granted to William H. Seymour for a new and useful improvement in reaping-machines. (4) Reissued letters patent No. 1,683, dated May 31, 1864, being a reissue of another of three parts of the prior reissue of that patent, as more fully explained in the pleadings; the charge being that the respondents have infringed the first claim. (5) Superadded to those several charges against the respondents is the further one that they have also infringed certain original letter patent owned by the complainants, dated January 24, 1854, which secures to them, as assignees of Palmer and Williams, certain other new and useful improvements in grain harvesters besides those embodied in the several reissued letters patent to which reference has been made.

Founded upon those several letters patent, the bill of complaint, which is drawn in the usual form, alleges that the respondents have unlawfully made, and used and vended to others to be used, the respective inventions therein described, and the complainants pray for an account and for an injunction. Service was made upon the respondents, and they appeared and filed an answer, setting up several defenses to each of the patents described in the bill of complaint. Responsive to the answer the complainants filed the general replication, and the cause being at issue they put in evidence the five several letters patent on which the suit is founded, the respondents consenting that copies of the same, and of the respective certificates of extension mentioned in the pleadings, might be substituted in the record in the place of the original as introduced in evidence.

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Other proofs were introduced and the parties were fully heard, but the circuit court was of the opinion that the proofs introduced by the complainants were not sufficient to show any infringement of their rights and, accordingly, entered a decree for the respondents, dismissing the bill of complaint. Dissatisfied with that conclusion the complainants appealed to this court and now seek to reverse that decree.

Separate defenses having been set up in the answer to each of the five letters patent, it will be necessary to a clear understanding of the controversy, and to prevent any misunderstanding as to the views of the court, to describe somewhat more fully the nature of the several inventions and the objects which they were designed to accomplish.

I. Explained in general terms, the invention secured in the first mentioned reissued patent, numbered four, consists in arranging an automatic sweep rake in a harvesting machine in such relation to a quadrant-shaped platform, upon which the cut grain falls as it is cut, that it shall vibrate over the same at suitable intervals to discharge the cut grain in gavels upon the ground.

Specific description is given, in the first place, of the frame of the machine, which, as represented, is composed of three longitudinal beams and two transverse beams securely fastened to each other at their points of intersection. Next follows a reference to the driving-wheel, which as represented, is placed between the outer longitudinal beam and the central beam, having its bearings on arched supports or brackets rising from each of the beams composing the frame. Guard-fingers, through which a sickle vibrates, are secured upon the front edge of a platform shaped like a quadrant or sector of a circle, of which the arm or lever that carries the rake head forms the radius, and the fulcrum pin on which the arm or lever vibrates constitutes the center, the whole operating so that the

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grain is swept round, on an arc of a circle, and discharged in gavels upon the ground behind the driving wheel.

Minute details of all the other elements of the machine are also given in the subsequent parts of the specifications, and of their modes of operation, and the specification concludes with the claim which, in substance, is discharging the cut grain from a quadrant-shaped platform on which it falls as it is cut, by means of an automatic sweep rake vibrating over the same, substantially as described, which must be understood as referring back to the description contained in the body of the specification.

II. Two combinations are mentioned in the specification of the reissued letters patent No. 1,682, but it is only necessary to refer to the first, as it is not alleged that the respondents have infringed the second claim. Described separately, the ingredients of the first claim are as follows: (1) The cutting apparatus to sever the standing stalks of grain. (2) The quadrant-shaped platform arranged behind the cutting apparatus to receive the severed stalks of grain as they fall. (3) The sweep rake and the described mechanism to operate the same in such manner that the teeth shall move in circular curves over the platform when they are acting on the grain.

Reference must also be made to the other two reissued letters patent embraced in the pleadings. Both have respect to an improvement made in reaping-machines, and they were both granted to secure material parts of an original invention once before surrendered and reissued because the letters patent were defective and inoperative. Before the term of the original patent expired, the patents were extended for the further term of seven years.

III. Number seventy-two consists in constructing the platform of a reaping-machine, upon which the cut grain falls as it is cut, in the shape of a quadrant, or of a sector of a circle, placed just behind the cutting apparatus, and in such relation to the main frame that the grain, whether

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raked off by hand or by machinery located behind the cutting apparatus, can be swept around on the arc of a circle and be dropped, heads foremost, on the ground far enough from the standing grain to leave room for the team and machine to pass between the gavels and the standing grain without the necessity of taking up the gavels before the machine comes round to cut the next swath.

IV. They also acquired title to the invention secured in the remaining reissued letters patent mentioned in the bill of complaint, to wit: number 1,683; but it will be sufficient to refer to the first claim of the same, as the second is not the subject of controversy in this suit.

As described in the specification the ingredients of the first claim are the cutting apparatus to sever the stalks, the reel to incline the heads of the stalks toward the cutting apparatus, and the quadrant-shaped platform, located in the rear of the cutting apparatus, to receive the cut stalks as they fall before the operation of the sweep rake begins.

Designed as the improvements were to accomplish the same object as the other two improvements previously described, the patentees or owners of the several letters patent elected to compromise rather than litigate, and the result was that the entire interest became ultimately vested in the appellants.

V. Patented improvements in the method of transferring motion from the driving-wheel of a reaping-machine to the rake on the platform of the machine, and in the method of hanging the reel so as to dispense with any post on the side of the machine next the grain, were also acquired by the appellants as a part of the same arrangement, and they charge in the bill of complaint that the second claim of the original letters patent, embodying that improvement, is also infringed by the respondents.

Power to grant letters patent is conferred by law upon the Commissioner of Patents, and when that power has

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been lawfully exercised, and a patent has been duly granted, it is of itself *prima facie* evidence that the patentee is the original and first inventor of that which is therein described, and secured to him as his invention. *White v. Allen*, 2 Cliff. 228.

Persons seeking redress for the unlawful use of letters patent, in which they have an interest, are obliged to allege and prove that they, or those under whom they claim, are the original and first inventors of the improvement embodied in the letters patent on which the suit is founded, and that the same have been infringed by the party against whom the suit is brought.

Undoubtedly, the burden to establish both of those allegations is, in the first place, upon the party instituting the suit, as they lie at the foundation of every such claim, but the law is well settled that the letters patent in question, where they are introduced in evidence in support of the claim, if they are in due form, afford a *prima facie* presumption that the first named allegation is true, and the rule is equally well settled that that presumption, in the absence of satisfactory proof to the contrary, is sufficient to entitle the party instituting the suit to recover for the alleged violation of the exclusive rights secured to him in the letters patent.

Availing themselves of that rule of law, the complainants in this case introduced the five several letters patent on which the suit is founded, and they contend, and well contend, that their effect as evidence is to cast the burden of proof upon the respondents to show that the respective patentees are not the original and first inventors of the improvements embodied in the several letters patent, as they have alleged in their answer.

Parties defendant, sued as infringers, are not allowed in an action at law to set up the defence of a previous invention, knowledge, or use of the thing patented; unless they have given notice of such a defence thirty days before

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the trial, and have stated in the notice "the names and places of residence of those whom they intend to prove to have possessed a prior knowledge of the thing, and where the same had been used;" and the settled practice in equity is to require the respondent, as a condition precedent to such defense, to give the complainant substantially the same information in his answer. *Agawam Co. v. Jordan*, 7 Wall. 596 [p. 24, *ante*]; *Teese v. Huntingdon*, 23 How. 10 [7 Am. & Eng. 72].

Notices of the kind were given by the respondents in this case, but it will be more convenient to examine certain special defenses set up in the answer before entering upon that inquiry, as the decree must be affirmed, in any event, if any one of those defenses is well founded, whether the issues of novelty and of infringement are determined in favor of the complainants or respondents.

All of the special defenses apply to the original patent, as well as to those which have been reissued, except such as are founded upon the acts or omissions of the Commissioner in granting the reissues, which, of course, are not applicable to the former. They are eight in number, as exhibited in the answer, the respondents alleging in each that the letters patent are void and of no effect for the reasons therein set forth; and they will be briefly examined in the order in which they are pleaded.

1. That the letters patent are void and of no effect because the patentees did not make oath before the patents were granted, that they did verily believe that they were the original and first inventors of the improvements for which the letters patent were solicited.

Congress possesses the power to pass laws to secure to inventors, for limited times, the exclusive right to their inventions, and Congress, in pursuance of that article of the Constitution, has conferred the power to grant letters patent for that purpose upon the Commissioner of Patents. Persons who have made an invention, and who desire to

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obtain an exclusive property therein, may make application in writing to the Commissioner of Patents, and the provision is that the Commissioner, on due proceedings had, may grant a patent for the said invention.

Inventors of machines are required, before they receive a patent, to deliver a written description of their inventions, and of the manner and process of making, constructing and using the same, in such "full, clear and exact terms" as to enable any person skilled in the art or science to make, construct and use the same, and fully to explain the principle by which the invention may be distinguished from others of like kind; and they are also required to specify and point out the part, improvement or combination which they claim as their invention.

Doubtless these several requirements may be regarded as conditions precedent to the right of the Commissioner to grant the application, as they must appear on the face of the letters patent, and are always open to legal construction as to their sufficiency.

Drawings are also required in certain cases, and where the invention is such that it may be represented by a model, the applicant for a patent is required to furnish a model of the same; and the further requirement is that he shall make oath or affirmation that he does verily believe that he is the original and first inventor of the improvement for which he solicits a patent, and that he does not know that the same was ever before known or used.

Importance, it is conceded, must be attached to the latter requirement, but it is certain that the oath or affirmation may be taken elsewhere than before the Commissioner, as the same section provides that it "may be made before any person authorized by law to administer oaths." 5 Stat. at L. 119.

Extended examination of the question, however, is unnecessary, as every one of the letters patent on which the suit is founded contains the recital that the required oath

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was taken before the same was granted, and the court is of the opinion that those recitals, in the absence of fraud, are conclusive evidence that the necessary oaths were taken by the applicants before the letters patent were granted.

2. That the letters patent are void and of no effect because the patentees did not specify and point out in their specifications and claims the parts, improvements or combinations which they claim as their respective inventions. Grant the theory of fact assumed in the proposition and the conclusion would follow, but the whole theory of the proposition as applied to the present case is founded in error.

Inventions secured by letters patent sometimes, though rarely, embrace an entire machine, and in such cases it is sufficient if it appear that the claim is co-extensive with the invention. Other inventions embrace only one or more parts of a machine, as the coulter of a plough, or the divider or sweep rake of a reaping machine; and in such cases the part or parts claimed must be specified and pointed out so that constructors, other inventors and the public may know how to make the invention, and what is withdrawn from general use.

Patented inventions are also made which embrace both a new ingredient and a combination of old ingredients embodied in the same machine. Even more particularity of description is required in such a case, as the property of the patentee consists, not only in the new ingredient, but also in the new combination, and it is essential that his invention shall be so fully described that others may not be led into mistake, as no other person can lawfully make, use or vend a machine containing such new ingredient, or such new combination. They may make, use or vend the machine without the patented improvements, if it is capable of such use, but they cannot use either of those improvements without making themselves liable as infringers.

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may also be mentioned, of a much more numerous class, where all the ingredients of the invention are old, and where the invention consists entirely in a new combination of the old ingredients, whereby a new and useful result is obtained, and many of them are of great utility and value, and are just as much entitled to protection as those of any other class. *Union Sugar Ref. v. Matthiessen*, 2 Fish. Pat. Cas. 605.

Such a combination is sufficiently described if the ingredients of which it is composed are named, their mode of operation given, and the new and useful result to be accomplished pointed out, so that those skilled in the art and the public may know the extent and nature of the claim and what the parts are which co-operate to produce the described new and useful result. Tested by these rules, it is clear that the objection under consideration cannot prevail in respect to any one of the several letters patent on which the suit is founded.

3. That the reissued letters patent are void and of no effect, because the Commissioner of Patents never obtained jurisdiction to receive the surrender of the originals, nor to grant the reissues, as no evidence was produced before him to show that the originals were inoperative or invalid for any reason or cause whatsoever.

Whenever any patent is inoperative or invalid by reason of a defective or insufficient description or specification, if the error arose by inadvertency, accident or mistake, and without any fraudulent or deceptive intention, it is lawful for the Commissioner, upon the surrender to him of such patent, and on the payment to him of a certain duty, to cause a new patent to be issued to the inventor *for the same invention* for the residue of the term then unexpired, in accordance with the patentee's corrected description and specification. 5 Stat at L. 122.

Whether adjudged to be valid or invalid, it is clear that the several reissued letters patent are all in due form, and

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that they contain all the usual recitals asserting a compliance with the requirements specified in the Patent Act, and it is equally certain that the respondents did not introduce any proofs to establish the theory of fact assumed in the answer.

Authority to accept the surrender of original patents in certain cases, and to grant new patents to the inventor, was conferred upon the Commissioner by the act of the 3d of July, 1832, and in a case arising under that act it was held by this court, more than thirty years ago, that where an act was to be done or a patent granted, upon proofs to be laid before a public officer, upon which he was to decide the fact that such public officer had done the act or granted the patent was *prima facie* evidence that the proofs had been regularly made, and that they were satisfactory, even though the patent did not contain any recitals that the prerequisites to the grant had been fulfilled; and such continued to be the rule until the question came up again for consideration under the existing Patent Act, when it was held by this court that the fact of the granting of the reissued patent closed all inquiry into the existence of inadvertence, accident or mistake, and left open only the question of fraud for the jury.

R. R. v. Stimpson, 14 Pet. 458 [4 Am. & Eng. 324]; Stimpson v. R. R., 4 How. 384 [4 Am. & Eng. 398]; 4 Stat. at L. 559.

Since that time it has been definitely settled that neither reissued nor extended patents can be abrogated by an infringer, in a suit against him for infringement, upon the ground that the letters patent were procured by fraud in prosecuting the application for the same before the Commissioner. Rubber Co. v. Goodyear, 9 Wall. 797 [p. 150, *ante*]; S. C., 2 Cliff. 375.

Where the Commissioner accepts a surrender of an original patent and grants a new patent, his decision in the premises, in a suit for infringement, is final and conclusive,

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and is not re-examinable in such a suit in the Circuit Court, unless it is apparent upon the face of the patent that he has exceeded his authority, that there is such a repugnancy between the old and the new patent that it must be held, as matter of legal construction, that the new patent is not for the same invention as that embraced and secured in the original patent. *Battin v. Taggart*, 17 How. 83 [6 Am. & Eng. 243]; *O'Reilly v. Morse*, 15 How. 111, 112 [5 Am. & Eng. 483]; *Sickles v. Evans*, 2 Cliff. 222; *Allen v. Blunt*, 3 Story, 744.

4. That the reissued letters patent are void and of no effect because they were not granted for the same invention as that embodied in the original letters patent, nor for any invention made by the patentees before the original letters patent were granted.

Reissued letters patent must by the express words of the section authorizing the same, *be for the same invention* and, consequently, where it appears on a comparison of the two instruments, as matter of law, that the reissued patent is not for the same invention as that embraced and secured in the original patent, the reissued patent is invalid, as that state of facts shows that the Commissioner, in granting the new patent, exceeded his jurisdiction. Power is, unquestionably, conferred upon the Commissioner to allow the specification to be amended if the patent is inoperative or invalid, and in that event to issue the patent in proper form; and he may, doubtless, under that authority, allow the patentee to re-describe his invention and to include in the description and claims of the patent not only what was well described before, but whatever else was suggested or substantially indicated in the specification or drawings which properly belonged to the invention as actually made and perfected. Interpolations of new features, ingredients, or devices, which were neither described, suggested nor indicated in the original patent, or patent office model, are not allowed, as it is clear that the Commissioner has no

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jurisdiction to grant a reissue unless it be for the same invention as that embodied in the original letters patent, which, necessarily, excludes the right on such an application to open the case to new parol testimony and a new hearing as to the nature and extent of the improvement, except in certain special cases, as provided in a recent enactment not applicable to the case before the court. 16 Stat. at L. 206; *Cahart v. Austin*, 2 Cliff. 536; Curt. Pat. (3d ed.) 276; *Woodworth v. Stone*, 3 Story, 753.

Corrections may be made in the description, specification or claim where the patentee has claimed as new more than he had a right to claim, or where the description, specification or claim is defective or insufficient, but he cannot, under such an application, make material additions to the invention which were not described, suggested, nor substantially indicated in the original specifications, drawings or patent office model.

Prior to the decision of this court that a person sued as an infringer cannot abrogate a reissued or extended patent by showing that the Commissioner had been induced to grant it by fraudulent representations, it had sometimes been supposed that every such new patent was open to that defense and that the question was one of fact dependent upon evidence, but since it has been determined that such a party cannot be heard to make such a defense to the charge of infringement, it has come to be regarded as the better opinion that all matters of fact involved in the hearing of an application to reissue a patent, and in granting it, are conclusively settled by the decision of the Commissioner granting the application. Matters of construction arising upon the face of the instrument are still open, but all matters of fact connected with the surrender and reissue are closed in such a suit by the decision of the Commissioner in granting the reissued patent. *Rubber Co. v. Goodyear*, 9 Wall. 796 [p. 150, *ante*]; *Stimpson v. R. R.*

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Co., 4 How. 404 [4 Am. & Eng. 398]; R. R. Co. v. Stimpson, 14 Pet. 458 [4 Am. & Eng. 324].

Letters patent reissued for an invention substantially different from that embodied in the original patent are void and of no effect, as no jurisdiction to grant such a patent is conferred by any Act of Congress upon the Commissioner, and he possesses no power in that behalf except what the Acts of Congress confer. Whether a reissued patent is for the same invention as that embodied in the original patent or for a different one, is a question for the court in an equity suit to be determined as a matter of construction on a comparison of the two instruments, aided or not by the testimony of expert witnesses, as it may or may not appear that one or both may contain technical terms or terms of art requiring such assistance in ascertaining the true meaning of the language employed. *Sickles v. Evans*, 2 Cliff. 203.

Where the specification and claim, both in the original and reissued patents, are expressed in ordinary language, without employing any technical terms or terms of art, the question whether the reissued patent is for the same invention as that described in the original patent or for a different one, is purely a question of construction, but where both or either contain technical terms or terms of art the court may hear the testimony of scientific witnesses to aid the court in coming to a correct conclusion. Cases, doubtless, arise where the language of the specification and claim, both of the surrendered and reissued patents, is so interspersed with technical terms and terms of art that the testimony of scientific witnesses is indispensable to a correct understanding of its meaning. Both parties in such a case would have a right to examine such witnesses, and it would undoubtedly be error in the court to reject the testimony, but the case before the court is not of a character to render it expedient to pursue the inquiry. *Bischoff*

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v. Wethered, 9 Wall. 814 [p. 213, *ante*]; Betts v. Menzies, 4 B. & S. Q. B. 999.

Apply the rule to the present case, that the question is one of construction, and it is clear that the defense under consideration is not open to the respondents, as they did not introduce in evidence the original letters patent from which the reissued patents were derived.

Persons owning reissued letters patent, and seeking redress from those who have invaded their exclusive rights, are not obliged to introduce in evidence the surrendered patent, and if the old patent is not introduced by the party sued, he cannot have the benefit of such a defense.

5. That the several letters patent are void and of no effect because the claims therein patented are for an effect, and not for any particular machinery.

Founded, as the defense is, upon an obvious misconstruction of the claims of the several patents, it does not seem to require much explanation. Omit the words "substantially as described," or "substantially as set forth," and the question presented would be a very different one, but inasmuch as those words, or words of equivalent import, are employed in each of the claims, the defense is without merit. Where the claim immediately follows the description of the invention it may be construed in connection with the explanations contained in the specifications, and where it contains words referring back to the specifications, it cannot properly be construed in any other way. Curt. Pat. (3d ed.), secs. 225-227.

6. That the several reissued letters patent are void and of no effect because the claims therein made are too broad and embrace that of which the patentees were not the original and first inventors prior to the granting of the original letters patent.

Properly understood the defense is substantially the same as that set up in the fourth defense, and it must be overruled for the same reasons, which need not be repeated.

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7. That the several letters patent are void and of no effect because what is claimed therein as new was in public use, with the consent and allowance of the original patentees, more than two years before they applied for the several patents.

Such a defense set up in a case where the complainants file the general replication is of no avail unless sustained by proof, and the respondents did not introduce any proofs to sustain it, which is all that need be said upon the subject.

8. That the combination claimed in each of the several letters patent is a combination of old parts, the combining of which involved no invention, but merely the skill of an intelligent mechanic or other persons skilled in the manufacture and use of harvesting machines.

Reduced to a proposition, the defense, as set up in the answer, is that the several improvements were old and not patentable on that account, as no improvements were made which required invention. Specific objection is made under this head to each of the four reissued letters patent, but the grounds of the several objections are substantially the same, so that the several propositions may be considered together.

New and useful machines are the proper subjects of an application for a patent, and so, by the express words of the Act of Congress, are new and useful improvements on any machine. All of the patents embraced in the suit fall under the second clause of the provision, and are of the fourth class of patents before described, that is, they consist of a new combination of old elements whereby a new and useful result is obtained.

Particular changes may be made in the construction and operation of an old machine so as to adapt it to a new and valuable use not known before, and to which the old machine had not been, and could not be, applied without those changes and, under those circumstances, if the machine,

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as changed and modified, produces a new and useful result, it may be patented, and the patent will be upheld under existing laws. *Bray v. Hartshorn*, 1 Cliff. 541; *Losh v. Hague*, 1 Web. Pat. Cas. 207 [2 Am. & Eng. 501]; *Hind. Pat.* 95; *Phillips v. Page*, 24 How. 166 [7 Am. & Eng. 97]; *Norm. Pat.* 25.

Such a change in an old machine may consist merely of a new and useful combination of the several parts of which the old machine is composed, or it may consist of a material alteration or modification of one or more of the several devices which entered into its construction, and whether it be the one or the other, if the change of construction and operation actually adapts the machine to a new and valuable use not known before, and it actually produces a new and useful result, then a patent may be granted for the same, and it will be upheld as a patentable improvement. *Park v. Little*, 3 Wash. (C. C.), 196.

Improvements for which a patent may be granted must be new and useful, within the meaning of the patent law, or the patent will be void, but the requirement of the Patent Act in that respect is satisfied if the combination is new and the machine is capable of being beneficially used for the purpose for which it was designed, as the law does not require that it should be of such general utility as to supersede all other inventions in practice to accomplish the same object. *Lowell v. Lewis*, 1 Mason 182; *Bedford v. Hunt*, 1 Mason 302; *Many v. Jagger*, 1 Blatchf. 372; *Barrett v. Hall*, 1 Mason, 447.

Unsuccessful in those defenses, the respondents in the next place attack the respective inventions as destitute of originality, and allege that the patentees were not the original and first inventors of the several improvements supposed to be secured in the letters patent. Separate defenses of the kind are set up in the answer to each of the letters patent, but the nature and character of the objec-

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tions are such that the whole series may properly be considered together.

Prior notice in the answer is required in such a case as a condition precedent to the right to introduce proofs to support such a defense, and it is certainly proper that the respondent should be allowed to comply with that requirement, but it is an abuse of the privilege to give such notices without some reason to suppose that such a defense can successfully be made, and that the proofs, if required, can be obtained, as it exposes the complainant to unnecessary expense and trouble in preparing his case for trial. Where no proofs were introduced in support of the answer no mention will be made of the notices, as a notice without proof to support it is of no avail.

Out of all the alleged prior inventions set up in the answer, only four were made the subject of proof to any substantial extent. Two of these are the inventions of Obed Hussey and of Thomas D. Burrall, of the combination of the quadrant-shaped platform located behind the cutting apparatus. Those patents were introduced as tending more particularly to supersede the reissued patent number seventy-two, before described.

Strong doubts are entertained whether any of the patents given in evidence by the respondents as superseding the particular patent of the complainants, involved in this issue, are of a character to have that effect, even if the inventions which they purport to secure were of prior date, but it is not absolutely necessary to decide that point, except as to one of the exhibits, as the court is of the opinion that none of the others antedate the invention secured in that patent. Conclusions are all that will be useful on this branch of the case, especially as the question is one of fact dependent upon the proofs, which are somewhat conflicting, and where a full analysis of the evidence would hardly be practicable, as it would extend the opinion to an unreasonable length.

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Proofs entirely satisfactory to the court are exhibited by the complainants showing that their invention, as described in the patent in question, was perfected early in the summer of 1849, as a material part of a harvesting machine, and that the same was reduced to practice as an operative machine during the harvesting season of that year.

Hussey, from 1839, or earlier, to the time of his death, in the summer of 1860, was much engaged in the manufacture of reaping machines of various kinds. Most of his machines, however, were constructed without any reel and with square platforms, so as to drop the cut grain at the rear of the platform, differing so widely from the patented machine of the complainants as to require no argument to show that they afford no support to the present defense. Other machines were constructed by him with a straight guide board on the platform, which was adjustable within certain limits, and the apparatus was, doubtless, capable, to a limited extent, of causing the cut grain to be moved sufficiently out of the path of the machine to give room for a single team.

Evidence to show that the invention of the complainants is embodied in those machines is entirely wanting, and it is quite clear that if any such had been introduced it could not have been credited, as the differences between them are too palpable and material to be overcome by parol evidence. Machines were also made by him with two platforms or with a platform in two parts, the one being attached to the rear of the other, but it required two men to do the work which, with the complainants' machine, is easily and much better accomplished by one, which is certainly all the explanation which need be given of those machines in the present case.

Apart from these he also made one experimental machine, with a square platform, to which was bolted an angular addition, giving the whole, when the addition was attached, an angular form. Examined when the addition

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is bolted to the main platform, irrespective of the other ingredients of the combination, it approaches much nearer to the invention of the complainants than any of the other exhibits introduced in evidence by the respondents. Conceding all that, still it would not be difficult to show that the two are substantially different in several respects; but it is unnecessary to enter that field of inquiry, as the proofs are entirely satisfactory to the court, that the machine, as constructed, was merely an experiment, and that it was never reduced to practice as an operative machine. Undoubtedly, it was built in the autumn of 1848, subsequent to the close of the harvest season; but the respondents' testimony shows that it was not used for cutting grain during that harvesting season.

Some obscurity surrounds its early history, nor is it of much importance that it should be better known. It appears that it was sent to the railroad depot to be transported to some other place for trial; but there is no positive evidence that it was ever forwarded or used, or that it was capable of any beneficial use. Where it was transported, if at all, from the depot, does not appear; but it does appear that it was returned the next year to the shop of the maker, and that it was set against the wall by the side of the street, in front of the shop, where it remained for some time; that it was then removed to the new shop of the maker, where it remained until it was taken to pieces and broken up by his order, and never restored till long subsequent to the complainants' patent.

Original and first inventors are entitled to the benefit of their inventions if they reduce the same to practice, and seasonably comply with the requirements of the patent law in procuring letters patent for the protection of their exclusive rights. Crude and imperfect experiments are not sufficient to confer a right to a patent; but in order to constitute an invention, the party must have proceeded so far

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as to have reduced his idea to practice, and embodied it in some distinct form.

Desertion of an invention consisting of a machine, never patented, may be proved by showing that the inventor, after he had constructed it, and before he had reduced it to practice, broke it up as something requiring more thought and experiment, and laid the parts aside as incomplete, provided it appears that those acts were done without any definite intention of resuming his experiments, and of restoring the machine with a view to apply for letters patent. *Johnson v. Root*, 2 Cliff. 123; *Gayler v. Wilder*, 10 How. 498 [5 Am. & Eng. 188]; *Parkhurst v. Kinsman*, 1 Blatchf. 494; *White v. Allen*, 2 Cliff. 230.

He is the first inventor, in the sense of the patent law, and entitled to a patent for his invention, who first perfected and adapted the same to use, and it is well settled that until the invention is so perfected and adapted to use it is not patentable under the patent laws. *Washburn v. Gould*, 3 Story, 122; *Cahoon v. Ring*, 1 Cliff. 612.

Argument is hardly necessary to show that nothing else introduced in evidence by the respondents as having been constructed by that inventor is of a character to interfere, in any substantial respect, with the novelty of the invention held by the complainants, as the weight of the evidence plainly tends to disprove the allegations of the answer, and the inferences to be drawn from a comparison of the exhibits would establish the opposite theory even if the other proofs were less decisive to that effect.

Prior invention by Thomas D. Burrall is the next defense set up by the respondents to the particular patent under consideration. They attempt to show that he constructed a harvesting machine having a square platform, to which he attached an apron quadrant formed, which would deliver the cut grain, heads foremost, at the side of the machine and out of the way of the team in cutting the next swath.

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Concede the fact that the machine, together with the circular apron, was constructed by the person named as alleged, and that the machine in that form antedates the invention held by the complainants, still the Court is of the opinion that it is not of a character to defeat the complainants' patent, as it had no reel, was not a self-raker in any view of the case, and consisted beyond doubt of a substantially different combination. Compared with that, the invention described in the complainants' patent is both new and useful, and is plainly sufficient to support a patent as a new arrangement.

Suppose it to be otherwise, still the conclusion as to this defense must be the same, as the court is unhesitatingly of the opinion from the proofs that the supposed inventor did not construct the circular apron, and attach the same to the square platform, and use the two in conjunction until after the complainants' invention was perfected and reduced to practice as an operative machine.

Evidence was also introduced by the respondents respecting the invention of Nelson Platt, but extended discussion upon that topic is unnecessary, as it is hardly contended by the respondents that the machine contains a quadrant-shaped platform with, and immediately behind, the cutting apparatus, and in such relation to the main frame as that described in the specification of the complainants' patent. They appear to shrink from that proposition, which is the only one involved in this defense, and seek shelter under another, of a very different character, which is that the difference between the two is so very slight that it required no invention to pass from the former to the latter, which is a matter appertaining to another head of the defense that has previously been fully considered and the point distinctly overruled.

Properly understood, that machine does not contain a combination of the quadrant-shaped platform with the cutting apparatus in any practical sense. On the contrary, it

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has a square platform combined with the cutting apparatus, and the quadrant-shaped platform is combined with the square platform; nor does it contain any quadrant-shaped platform to receive the grain as it falls, but the ingredients of the invention, as well as the combination, are different from those in the complainants' machine, and the mode of operation is also different, which is all that need be said in response to that defense.

Substantially the same defenses were also set up to the other reissued letters patent, to the extent that those patents were put in issue in the pleadings, but it will not be necessary to restate the objections to their originality nor to present any response to the same, as to do so would only be to repeat what has been said in respect to the one more particularly assailed in argument.

Attempt is also made to show that the original letters patent described in the bill of complaint are also invalid, because the patentees are not the original and first inventors of the improvements therein secured. Whether they were or were not the original and first inventors of the improvement in the first claim is a matter of no importance in this case, as the pleadings do not put that claim in issue. They only put in issue the second claim, which embodies the described method of hanging the reel so as to dispense with any post or reel bearer next to the standing grain, to prevent the grain from getting caught between the divider and the reel supporter, and the only evidence introduced of prior invention is what is contained in an article published in London, in the Mechanics' Magazine. Expert witnesses were examined in respect to it by both sides. One examined by the respondents testified that he did not understand that it had any reel support on the grain side of the machine, which in that respect is like the machine of the complainants; but three expert witnesses examined by the complainants testify that neither the description nor the drawings of the same, as exhibited in that maga-

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zine, show anything which is embodied in the complainants' patent, and the court is of the same opinion.

Patented inventions cannot be superseded by the mere introduction of a foreign publication of the kind, though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct and practice the invention to the same practical extent as they would be enabled to do if the information was derived from a prior patent. Mere vague and general representations will not support such a defense, as the knowledge supposed to be derived from the publication must be sufficient to enable those skilled in the art or science to understand the nature and operation of the invention, and to carry it into practical use. Whatever may be the particular circumstances under which the publication takes place, the account published, to be of any effect to support such a defense, must be an account of a complete and operative invention capable of being put into practical operation. *Web. Pat. Cas.* 719; *Curt. Pat.* (3d ed.), sec. 278, *a*; *Hill v. Evans*, 6 *Law T.*, N. S. 90; *Betts v. Menzies*, 4 *Best & S. Q. B.* 999.

None of these defenses, however, were sustained in the court below, but the Circuit judges were of the opinion that the proofs failed to show that the respondents had infringed the letters patent of the complainants.

Actual inventors of a combination of two or more ingredients in a machine, secured by letters patent in due form, are entitled, even though the ingredients are old, if the combination produces a new and useful result, to treat every one as an infringer who makes and uses or vends the machine to others to be used without their authority or license. *Pitts v. Whitman*, 2 *Story*, 619; *Ames v. Howard*, 1 *Sumn.* 487.

They cannot suppress subsequent improvements which

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are substantially different, whether the new improvements consist in a new combination of the same ingredients or of the substitution of some newly-discovered ingredient, or of some old one performing some new function not known at the date of the letters patent, as a proper substitute for the ingredient withdrawn from the combination constituting their invention. Mere formal alterations in a combination in letters patent, however, are no defense to the charge of infringement, and the withdrawal of one ingredient from the same and the substitution of another which was well known at the date of the patent as a proper substitute for the one withdrawn, is a mere formal alteration of the combination if the ingredient substituted performs, substantially, the same function as the one withdrawn.

Patentees, therefore, are entitled in all cases to invoke to some extent the doctrine of equivalents, but they are never entitled to do so in any case to suppress all other substantial improvements, and the rule which disallows such pretensions, if properly understood and limited, is as applicable to the inventor of a device, or even of an entire machine, as to the inventor of a mere combination, except that the inventor of the latter cannot treat anyone as an infringer whose machine does not contain all of the material ingredients of the prior combination, as in that state of the case the subsequent invention is regarded as substantially different from the former one, unless the latter machine employs as a substitute for the ingredient left out, to perform the same function, some other ingredient which was well known as a proper substitute for the same when the former invention was patented. *Prouty v. Ruggles*, 16 Pet. 341 [4 Am. & Eng. 351]; *Johnson v. Root*, 2 Cliff. 123.

Bona fide inventors of a combination are as much entitled to suppress every other combination of the same ingredients to produce the same result, not substantially different from what they have invented and caused to be patented, as any other class of inventors. All alike have the

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right to suppress every colorable invasion of that which is secured to them by their letters patent, and it is a mistake to suppose that this court ever intended to lay down any different rule of decision. Guided by these rules, the remaining question for the determination of the court is whether the respondents have infringed the several patents described in the bill of complaint.

Infringement is alleged by the complainants, and the burden is upon them to prove the allegation, as it imputes a wrongful act to the respondents. All controversy as to the character of the machines made and sold by the respondents, is closed by their admission set forth in the record. Exhibit six, it is conceded by the respondents, is an accurate representation of the machines which they made and sold, and the complainants accept the admission as correct. Absolute certainty, therefore, attends that inquiry, and there is very little, if any, more difficulty in ascertaining the construction of the patented machines made and furnished to the public by the complainants, so that the only substantial inquiry is, whether the machines made and sold by the respondents infringe the patented machines of the complainants, as the latter embody all the inventions of the complainants except the claims pointed out as not infringed, and the proofs satisfy the court that the exhibits are constructed in accordance with the mechanism described in the several letters patent.

Properly construed the reissued patent number 4 is the combination of a quadrant-shaped platform located behind the cutting apparatus of the harvester so as to receive the grain as it falls after it is cut, with an automatic sweep rake so constructed as to sweep over the platform in circular curves, and to move forward and backward, or towards and from the cutting apparatus, so as to seize upon the grain as it falls, after being cut, sweeping it over the platform in circular curves and delivering it upon the ground behind the machine with its stalks at right angles, or nearly

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so, with the line of progression of the machine, and to return by a forward movement towards the cutting apparatus to the original position when the first operation commenced.

Number 1,682 is divided into two parts, the first of which may be used without the second, and it is not charged that the second part has been infringed by the respondents. Briefly described it consists of a combination of the cutting apparatus of a harvester with a quadrant shaped platform arranged in the rear thereof, and with a sweep rake operated by mechanism in such a manner that its teeth are caused to sweep over the platform in curves when acting on the grain, and to discharge the stalks crosswise in the direction of the swath and out of the way of the team on the return of the machine.

Two combinations are also contained in the reissued patent 1,683, but the respondents are not charged with infringing the second, so that it is only necessary in this connection to refer to the first and describe its operation. It consists of a combination of the cutting apparatus with a reel and with a quadrant-shaped platform located in the rear of the cutting apparatus, operating as follows: the cutting apparatus severing the grain, the reel bearing the grain against the cutting apparatus and insuring its delivery upon the quadrant-shaped platform in the rear thereof, and the quadrant-shaped platform receiving the grain from the cutting apparatus and reel, and supporting it in such a manner that it can be moved from the cutting apparatus, heads foremost, swept round in a curve and discharged upon the ground crosswise to the direction of the swath and out of the track of the horses when the machine comes round to cut the next swath.

Patent numbered 72 is also an arrangement of the quadrant-shaped platform immediately behind the cutting apparatus of a reaping machine, so that the platform will receive the grain as it falls from the cutting apparatus, and will support it in such a manner that it may be swept

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around in a curvilinear path and discharged, heads foremost, upon the ground at the side of the platform out of the path of the horses when they return.

Reference will only be made to the second part of the original patent embraced in the suit, as it is not charged that the respondents have infringed the other claim. Separated from the second claim the first consists in a mode of hanging the reel in a reaping machine so as to dispense with any post or reel-bearer on the side next to the standing grain, without any projection of the reel shaft or bearing therefor on that side of the machine, so that the reel overhangs the bearings on the one side and is without support on the other side.

Prior to the act of Congress allowing several patents to be issued for distinct and separate parts of the thing patented, it is not probable that a bill of complaint joining five several patents in the same charge of infringement would have escaped objection from the respondent, but it will be noticed that all the claims appertain to the same general subject, and that it requires all of the inventions in question to constitute a complete self-raking harvester or reaping machine, and that they are all embodied in the machines which the complainants make and furnish to the public. Viewed in that light the court is of the opinion that the objection, if it had been made, could not have been sustained. 5 Stat. at L. 192.

Where the invention or inventions are embodied in a machine, the question of infringement is best determined by a comparison of the machine made by the respondent with the mechanism described in the complainant's patent or patents, where more than one is embraced in the same suit. *Blanchard v. Putnam*, 8 Wall. 426 [p. 107 *ante*].

Comparisons of the kind have been carefully made by the court, aided by the evidence of the expert witnesses, as exhibited in the record, and the court is of the opinion that the several inventions of the complainants, excepting the

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claims pointed out as not infringed, are embodied in the machines made and sold by the respondents. Two of the expert witnesses testify to that effect without qualification, and the reasons which they assign for that conclusion are, in the opinion of the court, decisive of the question. Some attempt was made in the cross-examination of those witnesses to elicit an answer that the sweep rake employed by the respondents operated differently from the corresponding device of the complainants in the several reissued patents, but the attempt was wholly unsuccessful, and called forth explanations which confirm the conclusion that the two devices have substantially the same operation.

Special reference is made in the opinion of the district judge to the means employed by the respondents in supporting the reel, as showing that the machines which they have made and sold do not infringe the second claim of the original patent. His view is that their machines do not infringe that claim because they do not employ but one reel post instead of two, as shown in the complainants' patent, but it is so obvious that the one post with the frame attached to the upper end is substantially the same thing that it is not deemed necessary to pursue the argument.

For these reasons we are all of the opinion that the complainants are entitled to a decree that their several patents are valid, and for an account and for a perpetual injunction, except as to such, if any, as have expired.

Decree reversed with costs, and the cause remanded for further proceedings, in conformity to the opinion of the court.

11 Wall. 559-560.

Notes :

1. Letters patent are *prima facie* evidence of inventorship.

Railroad Co. v. Stimpson, 14 Pet. 448 [4 Am. & Eng. 324].

Agawam Co. v. Jordan, 7 Wall. 588. [p. 24 ante].

Blanchard v. Putnam, 8 Wall. 420. [p. 107 ante].

Mitchell v. Tilghman, 19 Wall 287.

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Smith v. Goodyear D. V. Co., 93 U. S. 486.

Roemer v. Simon, 95 U. S. 214.

Bates v. Coe, 98 U. S. 31.

2. Production of Patent shifts the burden of proof.

Smith v. Goodyear D. V. Co., 93 U. S. 486.

Bates v. Coe, 98 U. S. 31, and see note 1.

6. Letters patent cannot be collaterally impeached for fraud in infringement proceedings.

See Rubber Co. v. Goodyear, 9 Wall. 788 [p. 150 *ante* note 10].

7. Reissue proceedings when conclusive and when not.

Grant v. Raymond, 6 Pet. 218 [4 Am. & Eng. 245].

Shaw v. Cooper, 7 Pet. 292 [4 Am. & Eng. 286].

Stimpson v. Railroad, 4 How. 380 [4 Am. & Eng. 398].

Klein v. Russell, 19 Wall. 433.

Corn Planter Patent, 23 Wall. 181.

Russell v. Dodge, 93 U. S. 460.

Powder Co. v. Powder Works, 98 U. S. 126.

Ball v. Langles, 102 U. S. 128.

8. The reissue must be for the same invention as the original.

Battin v. Taggart, 17 How. 74 [6 Am. & Eng. 242].

Gill v. Wells, 22 Wall. 1.

Corn Planter Patent, 23 Wall. 181.

Marsh v. Seymour, 97 U. S. 348.

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Permissible variations.

O'Reilly v. Morse, 15 How. 62 [5 Am. & Eng. 483].

Russell v. Dodge, 98 U. S. 460.

Eames v. Andrews, 122 U. S. 40.

9. See note 7.

10. Identity of original and reissued patent a question for the court.

Russell v. Dodge, 98 U. S. 460.

Ball v. Langles, 102 U. S. 128.

Heald v. Rice, 104 U. S. 737.

Original patent in evidence on the question of identity.

Eureka Co. v. Bailey Co, 11 Wall. 488. [p. 280 *ante*].

Smith v. Goodyear D. V. Co., 93 U. S. 486.

Bates v. Coe, 98 U. S. 31.

Ball v. Langles, 102 U. S. 128.

Clark v. Wooster, 119 U. S. 322.

11. "Substantially as described" effect on construction of claim.

Winans v. Denmead, 15 How. 330 [6 Am. & Eng. 107].

Seymour v. McCormick, 19 How. 96 [6 Am. & Eng. 282].

Klein v. Russell, 19 Wall. 433.

Garratt v. Siebert, Bk. 21 L. ed. 956.

Hailes v. VanWormer, 20 Wall. 353.

Corn Planter Patent, 23 Wall. 181.

Railway Co. v. National Car Brake Co., 110 U. S. 222.

Notes and Citations.

Brown v. Davis, 116 U. S. 237.

Matthews v. Iron Clad Mnfg. Co., 124 U. S. 347.

Weir v. Morden, 125 U. S. 98.

Telephone Cases, 126 U. S. 1.

13. Patentability of an "improvement."

O'Reilly v. Morse, 15 How. 62 [5 Am. & Eng. 483].

Jacobs v. Baker, 7 Wall. 295 [7 Am. & Eng. 483].

Fuller v. Yentzer, 94 U. S. 299.

Blake v. City of San Francisco, 113 U. S. 679.

15. An abandoned experiment will not defeat a subsequent patent.

Gayler v. Wilder, 10 How. 477 [5 Am. & Eng. 188].

Whitely v. Swayne, 7 Wall. 685 [p. 70 *ante*].

Corn Planter Patent, 23 Wall. 181.

Smith v. Goodyear D. V. Co., 93 U. S. 486.

Marsh v. Seymour, 97 U. S. 348.

Elastic Fabric Co. v. Smith, 100 U. S. 110.

Miller v. Foree, 116 U. S. 22.

17. The first to reduce to practice is the prior inventor.

Agawam Co. v. Jordan, 7 Wall. 583. [p. 24 *ante*].

Whiteley v. Swayne, 7 Wall. 685. [p. 70 *ante*].

Coffin v. Ogden, 18 Wall. 120.

Loom Co. v. Higgins, 105 U. S. 580.

Telephone Cases, 126 U. S. 1.

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19. Prior publication, sufficiency of description to defeat patent.

Cohn v. Corset Co., 93 U. S. 366.

Downton v. Yaeger, 108 U. S. 466.

Eames v. Andrews, 122 U. S. 40.

Date of publication.

City of Elizabeth v. Pavement Co., 97 U. S. 126.

Bates v. Coe, 98 U. S. 31.

Parks v. Booth, 102 U. S. 96.

Of what publication is evidence.

Seymour v. McCormick, 19 How. 96 [6 Am. & Eng. 282].

Sufficient notice of publication.

Silsby v. Foote, 14 How. 218 [5 Am. & Eng. 411].

21. Who is entitled to doctrine of equivalents.

McCormick v. Talcott, 20 How. 402 [6 Am. & Eng. 410],

and see Burr v. Duryee, 1 Wall. 531 [7 Am. Eng. 224].

Patents in Suit:

No. 8,192. Palmer & Williams. July 1, 1851. Reissue
No. 305, April 10, 1855. Reissue No. 1,110 and 1,109,
January 1, 1861. Reissue No. 1,682, May 31, 1864.
Harvester, a.

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No. 8,212. Seymour, W. H. July 8, 1851. Reissue No. 1,003, July 10, 1860. Reissue No. 1,177 (also No. 72), May 7, 1861. Reissue No. 1,683, May 31, 1864. Harvester, *b*.

No. 10,459. Palmer & Williams. January 24, 1854. Harvester, *c*.

OTHER SUITS ON SAME PATENT:

Seymour v. Osborne, May, 1869. 3 Fish. 555, *a b c*.

Seymour v. Marsh, October, 1872. 6 Fish. 115, 9 Phila. 380, *a & b*.

Marsh v. Seymour, March, 1878. 97 U. S. 348; Bk. 24, L. ed. 963; 2 O. G. 675, *a & b*.

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Rees v. Gould, 1872. 15 Wall. 187; Bk. 21, L. ed. 89.

Mitchell v. Tilghman, 1874. 19 Wall. 287; Bk. 22, L. ed. 125.

Gill v. Wells, 1874. 22 Wall. 1; Bk. 22, L. ed. 699.

Brown v. Guild, 1874. 23 Wall. 181; Bk. 23, L. ed. 161.

Moran v. Prather, 1875. 23 Wall. 492; Bk. 23, L. ed. 121.

Sewall v. Jones (Dis. Opin.), 1875. 91 U. S. 171; Bk. 23, L. ed. 275.

Reckendorfer v. Faber, 1876. 92 U. S. 354; Bk. 23, L. ed. 719.

Russell v. Dodge, 1877. 93 U. S. 460; Bk. 23, L. ed. 973.

Cammeyer v. Newton, 1877. 94 U. S. 225; Bk. 24, L. ed. 72.

Fuller v. Yentzer, 1877. 94 U. S. 288; Bk. 24, L. ed. 103.

Roemer v. Simon, 1877. 95 U. S. 214; Bk. 24, L. ed. 384.

Marsh v. Seymour, 1878. 97 U. S. 352; Bk. 24, L. ed. 963.

Bates v. Coe, 1878. 98 U. S. 31; Bk. 25, L. ed. 68.

Giant Powder Co. v. California Powder Works, 1878. 98 U. S. 126; Bk. 25, L. ed. 77.

Ball v. Langles, 1880. 102 U. S. 180; Bk. 26, L. ed. 104.
Downton v. Yeager, 1882. 108 U. S. 466; Bk. 27, L. ed. 789.
Heald v. Rice, 1882. 104 U. S. 737; Bk. 26, L. ed. 910.
Rowell v. Lindsay, 1885. 113 U. S. 97; Bk. 28, L. ed. 906.
Electric Railroad Signal Co. v. Hall Railway Signal Co., 1885.
 114 U. S. 87; Bk. 29, L. ed. 96.
Cantrell v. Wallick, 1886. 117 U. S. 689; Bk. 29, L. ed. 1017.
Eames v. Andrews, 1887. 122 U. S. 40; Bk. 30, L. ed. 1064.
Parker & Whipple Co. v. Yale Clock Co., 1887. 123 U. S. 87.

Parham v. American Buttonhole Overseaming & Sewing Machine Co., April, 1871. 4 Fish. 468; 1 Leg. Gaz. Rep. 145.

Roberts v. Dickey, May, 1871. 4 Brewster, 260; 4 Fish. 532; 3 Pitts. Rep. 252; 1 O. G. 4.

Sayles v. Chicago & Northwestern R. R. Co., June, 1871. 3 Biss. 52; 4 Fish. 584.

Tilghman v. Mitchell, August, 1871. 9 Blatch. 18; 4 Fish. 615.

Carew v. Boston Elastic Fabric Co., October, 1871. 3 Cliff. 359; 5 Fish. 90.

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Chicago Fruit House v. Busch, 1871. 2 Biss. 472; 4 Fish. 395.

McComb v. Ernest, November, 1871. 1 Woods, 195.

Cook v. Ernest, March, 1872. 5 Fish. 396; 2 O. G. 89.

Sarven v. Hall, April, 1872. 9 Blatch. 526; 5 Fish. 415; 1 O. G. 437.

Reeves v. Keystone Bridge Co., April, 1872. 5 Fish. 456; 1 O. G. 466; 9 Phila. R. 368.

Washing Machine Co. v. Tool Co., June, 1872. 1 Holmes, 161.

Smith v. Reynolds, June, 1872. 10 Blatch. 85.

Rumford Chemical Works v. Hecker, September, 1872. 10 Blatch. 122; 5 Fish. 615; 3 O. G. 349.

Seymour v. Marsh, October, 1872. 6 Fish. 115; 9 Phila. R. 380; 2 O. G. 675.

Decker v. Grote, December, 1872. 10 Blatch. 331; 6 Fish. 143; 3 O. G. 65.

Gear v. Grosvenor, March, 1873. 1 Holmes, 215; 6 Fish. 314; 3 O. G. 380.

King v. Louisville Cement Co., March, 1873. 6 Fish. 336; 4 O. G. 181.

Jones v. Sewall, April, 1873. 3 Cliff. 563; 6 Fish. 343.

Dorsey Harvester Rake Co. v. Marsh, April, 1873. 6 Fish. 387; 9 Phila. Rep. 395.

In re Conklin, January, 1874. 1 MacA. 375.

Wells v. Jacques, February, 1874. 1 Ban. & Ard. 60; 5 O. G. 364.

Conklin v. Stafford, March, 1874. 5 O. G. 235.

Westinghouse v. Gardner & Ransom Air Brake Co., April, 1875. 2 Ban. & Ard. 55; 9 O. G. 538.

Doherty v. Haynes, May, 1874. 4 Cliff. 291; 1 Ban. & Ard. 289.

Goodyear Dental Vulcanite Co. v. Smith, May, 1874. 1 Holmes, 357; 1 Ban. & Ard. 201.

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O. G. 721.**

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Knight v. Annan, February, 1871. C. D. 1871. p. 84.

Gray v. Hale, May, 1871. C. D. 1871. p. 129.

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Syllabus.

WILLIAM N. WHITELEY ET AL., APPELLANTS, v.
WILLIAM A. KIRBY AND DAVID OSBORNE.*

11 Wall., 678-681. Dec. Term, 1868.

[Bk. 20, L. ed. 82; 2 Whit. 328.]

Argued February 25, 1869. Decided March 22, 1869.

Particular patent. Infringement.

1. Reissued letters patent No. 1,262, B. Densmore, January 28, 1862, Harvester, of original patent No. 8,720, February 10, 1852, *held* not anticipated by patents No. 6,517, N. Platt, June 12, 1849, and No. 2,007, A. Churchill, March 1, 1841, Harvesters. (p. 428.)
2. Claim 1 of reissued letters patent No. 1,262, B. Densmore, January 28, 1862, Harvester, for "hanging the driving-wheel in a supplementary frame, or its equivalent, which is hinged at one end by the main frame, while its opposite end may be adjusted and secured at various heights, or be left free as desired, whereby the cutting apparatus may be held at any desired height for reaping or be left to accommodate itself to the undulations of the ground, substantially as described," *held* infringed by a harvester constructed with a main frame which carries the cutting apparatus, and having attached to the main frame a secondary (supplemental) frame, which carries the driving-wheel, the secondary frame being prolonged beyond the driving-wheel to a standard in the form of an arc, having holes at various heights, by which the secondary frame and with it the axis of the driving-wheel is secured at fixed distances above the main-frame. (p. 429.)

Appeal from the Circuit Court of the United States for the Southern District of Ohio.

The bill in this case was filed in the court below, by the defendants in error, for an injunction against making, using or selling certain harvesting machines. A decree

*See Explanation of Notes, page III.

Statement of the case.

having been entered in said court in favor of the complainants, the respondents took an appeal to this court.

The drawing and specifications of Densmore's patent are as follows: Churchill's alleged anticipating patent is also given. For Nelson Platt's patent No. 6,517 of June 12, 1849, Harvesters. See p. 299, *ante*, where it is given in full.

BYRON DENSMORE, OF SWEDEN, ASSIGNOR TO
D. M. OSBORNE, OF AUBURN. AND W. A. KIRBY,
OF BUFFALO, NEW YORK.

IMPROVEMENT IN HARVESTERS.

Specification forming part of Letters Patent No. 8,720, dated February 10, 1852; Reissue No. 1,262, dated January 28, 1862.

To all whom it may concern:

Be it known that Byron Densmore, of the town of Sweden, in the county of Monroe, and State of New York, assignor to David M. Osborne, of the city of Auburn, and William A. Kirby, of the city of Buffalo, and State aforesaid, heretofore invented certain new and useful Improvements in Harvesting-Machines. Now, therefore, we the said David M. Osborne and William A. Kirby, assignees of the whole interest of the said Byron Densmore, as aforesaid, do hereby declare that the following is a full, clear, and exact description of the construction and operation of the said invention and improvements, reference being had to the accompanying drawings, making a part of this specification, in which—

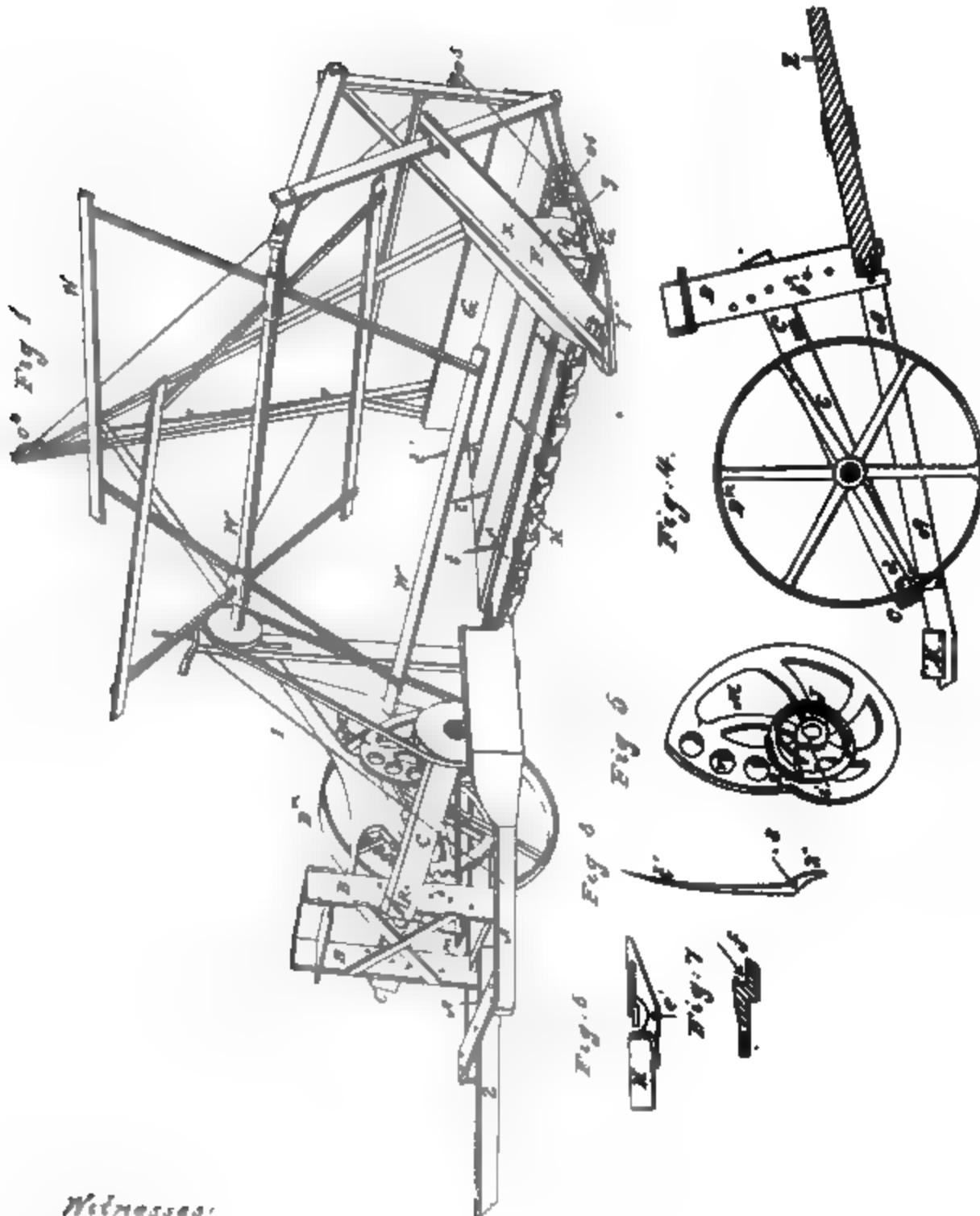
Figure I is a perspective view of the machine. Fig. II is a vertical longitudinal section on line *x y* of Fig. III. Fig. III is a top plan of the machine. Fig. IV is a vertical longitudinal section through the driving-wheel, showing the combination of the main and supplemental frames. Fig. V is a view of the outer side of the grooved cam,

B. DENSMORE.

Harvester.

No. 1,262.

Reissued Jan'y 28, 1862.



Witnesses:

J. McOsborne for self
J. McOsborne atty for W. A. Kirby

Assignees.
Byron Denmore

Statement of the case.

showing also the ratchet-wheel. Fig. VI is an elevation of the guard-finger. Fig. VII is a section of a plate or secondary finger placed intermediate between a portion of the guard-fingers to support the sickle or cutters. Fig. VIII is a view of the back tooth of the rake. Fig. IX is a view of the outside ground-wheel.

The nature and principles of the said invention relate, first, to the construction and combination of two frames—the one for supporting the driving-wheel and the other for supporting the cutting apparatus—and hinging the said frames together in such manner that the driving-wheel and cutting apparatus may each follow the inequalities of the ground independently of the other, and also that they may be bolted rigidly together for supporting the cutting apparatus at any desired height; second, in providing a ground-wheel with crank and lever for raising and lowering the outer end of the finger-bar.

Letters of like name and kind refer to like parts in each of the figures.

A represents the main frame of the machine, which consists of several pieces of timber properly framed and bolted together. This frame carries the finger-bar and cutting apparatus, as herein described.

B are two upright posts forming part of the main frame for the purpose of supporting the driver's seat and for forming an adjustable connection with the supplemental or wheel frame.

C represents a supplemental frame, in which the driving-wheel is hung. It is hinged to the main frame by means of bolt and hinge-plate, as shown at *d*, so as to allow it to have a hinge or joint-like movement, the object being to have a hinge or joint-like connection between the two frames, so as to allow an independent movement of each frame. The particular manner of forming the hinge or joint connection is not deemed important. Any mechanical means by which the end is secured will answer the principle of the invention. The opposite end of the frame

Statement of the case.

moves in the arc of a circle, and in close proximity to the upright posts B, so that it may be made fast to said posts by means of bolts passing through said posts and frame at either of the several bolt-holes *b'*, by which means an adjustability is secured, and the cutting apparatus thereby raised and lowered and supported at any desired height from the ground when reaping.

When desired the adjusting-bolts may be removed entirely, and this end of the frame left free to oscillate or swing from its hinges, according to the unevenness of the ground over which the driving-wheel passes may require. By this combination and connection of the two frames it is evident that the driving-wheel, when mowing, may pass over uneven surfaces without causing an elevation or depression of the finger-bar and cutting apparatus, and the finger-bar and cutting apparatus may also conform to the inequalities of the ground independently of the position of the driving-wheel, and a uniform flexibility between the two frames constantly maintained, the elevation or depression of the driving-wheel and the elevation or depression of the cutting apparatus (occasioned by the uneven surfaces of the ground over which the machine passes) not being simultaneous nor dependent one upon the other. The axle of the driving-wheel has appropriate bearings upon the side pieces of the supplemental frame, as shown at *c'*, Fig. III.

The gear-wheels for communicating motion to the cutters are shown at 1 2 3 4, each hung in a common manner upon its appropriate shaft, as shown in Fig. III.

The ground-wheel F (shown in Figs. I, III, and IX) is hung on the crank *h*, which crank is supported by boxes on each side of the wheel, made fast to the frame G; or it may be supported on the finger-bar or divider in any convenient manner, so that the wheel may be made to adjust and carry the outer end of the finger-bar, as desired. One object of hanging this wheel on a crank-shaft with a lever attachment thereto is to provide a means for conveniently

Statement of the case.

raising and carrying the outer end of the cutting apparatus free from the ground when it is desirable to move the machine from place to place. Another object is to afford a means for raising, lowering, and supporting the outer end of the finger-bar and cutting apparatus at different heights from the ground when the machine is used for reaping. The essential feature of this part of the invention is hanging the wheel upon a crank-shaft with the crank and lever for operating the same, so that the purpose of raising and lowering the outer end of the finger-bar is attained. The precise details of the arrangement are not deemed important.

The finger-bar H is made fast to the side pieces of the main frame upon the upper side of the said pieces by bolts or otherwise, as shown at *a'*, so that the inner side piece will serve as an extension-shoe or runner to slide over the stubble or mown grass, and protect the heel of the cutters.

D *n* is the driving-wheel; Z, draft pole attached to the main frame, and to which the team is harnessed in the common manner.

Having thus fully described the construction and operation of the said improvement, what we claim as the invention of the said Byron Densmore, is—

1. Hanging the driving-wheel in a supplementary frame or its equivalent, which is hinged at one end to the main frame, while its opposite end may be adjusted and secured at various heights or be left free, as desired, whereby the cutting apparatus may be held at any desired height for reaping, or be left free to accommodate itself to the undulations of the ground for mowing, substantially as described.

2. The employment in, a harvesting-machine, of a wheel provided with a crank and lever for the purpose of raising and lowering the outer end of the finger-bar to cut high or low, substantially as described.

DAVID M. OSBORNE.
WM. A. KIRBY.

Witnesses :

CHAS. H. GARLOCK,
JNO. H. OSBORNE.

Statement of the case.

ALFRED CHURCHILL, OF GENEVA, ILLINOIS.

IMPROVEMENT IN THE MODE OF HARVESTING GRAIN.

Specification forming part of Letters Patent No. 2,007, dated
March 16, 1841.

To all whom it may concern :

Be it known that I, Alfred Churchill, of Geneva, in the county of Kane, and State of Illinois, have invented a new and Improved Mode of Harvesting ; and I do hereby declare that the following is a full and exact description ;

The nature of my invention consists in thrashing and saving all kinds of small grain when standing in the field without cutting the straw.

To enable others skilled in the art to make and use my invention, I will proceed to describe a combination of machinery to perform the operation.

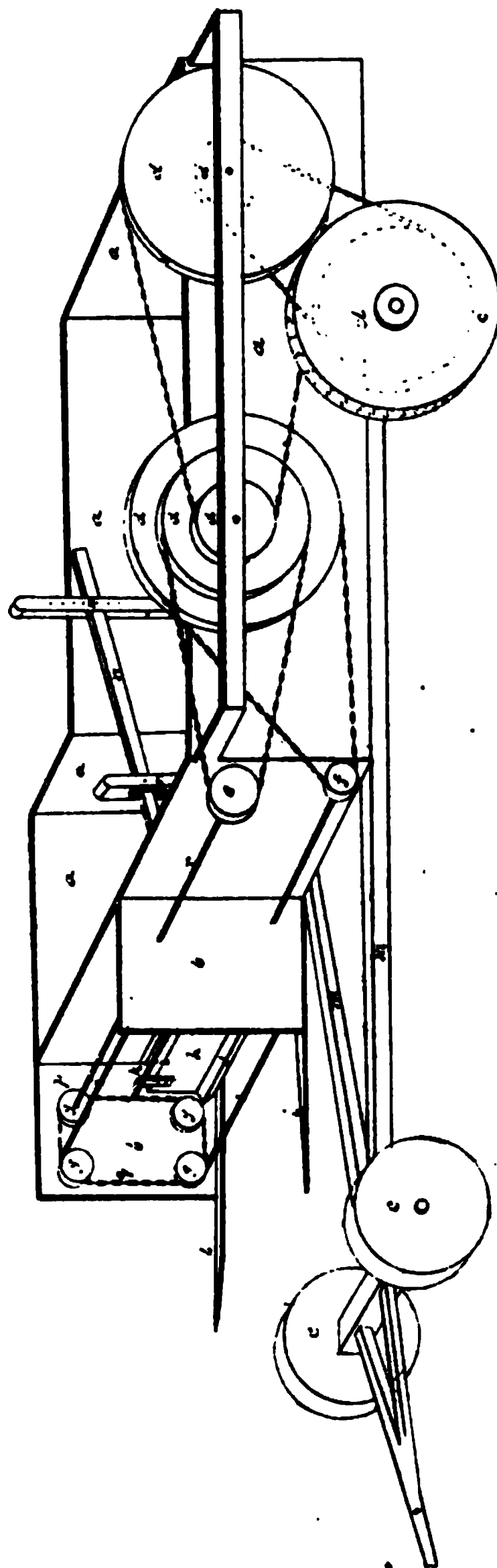
I construct the thrashing part of my machine similar to the thrashing part of a common thrashing machine and get the power from one of the hind wheels of the carriage, *c*, Fig. 1, upon which the machine is placed. The cylinder, *d*, Fig. 2, which thrashes the grain, is placed at one side of the front end of the frame or grain-box, *a a*, Fig. 1, of the machine, so as to allow the team that moves the machine to travel by the side of the grain upon which the thrasher is to operate. The forward wheels, *c c*, Fig. 1, are of narrow track and a few feet in front of the opposite corner of the box to which the thrashing-cylinder is attached and connected to the hind wheels by coupling-bars, *m m*, Fig. 1, on which the front end of the grain-box rests. I attach also to the machine what I call a "gatherer." Its place of action is in front of the cylinder. It serves to gather the grain to the thrasher, and raise the cap which covers the cylinder and grain while thrashing.

One kind of gatherer may be constructed by erecting at each end of the cylinder, *d*, Fig. 2, and projecting a sufficient distance forward and of a sufficient height, sides or

Sheet 1-4 Sheets.

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N^o 2007 *Patented Mar 16, 1841.*

Fig. 1.



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Fig. 2

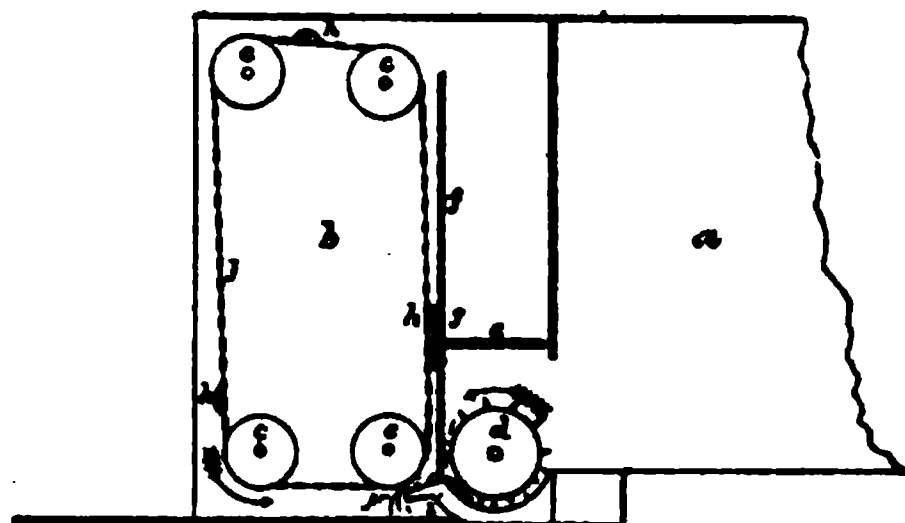


Fig. 4.

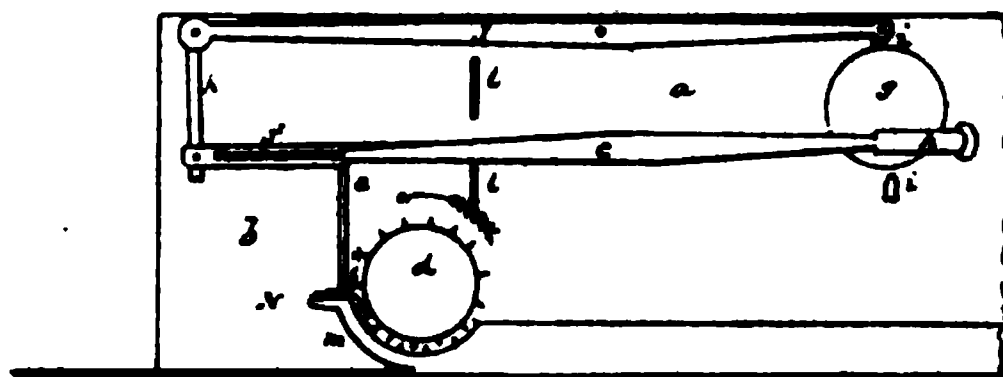
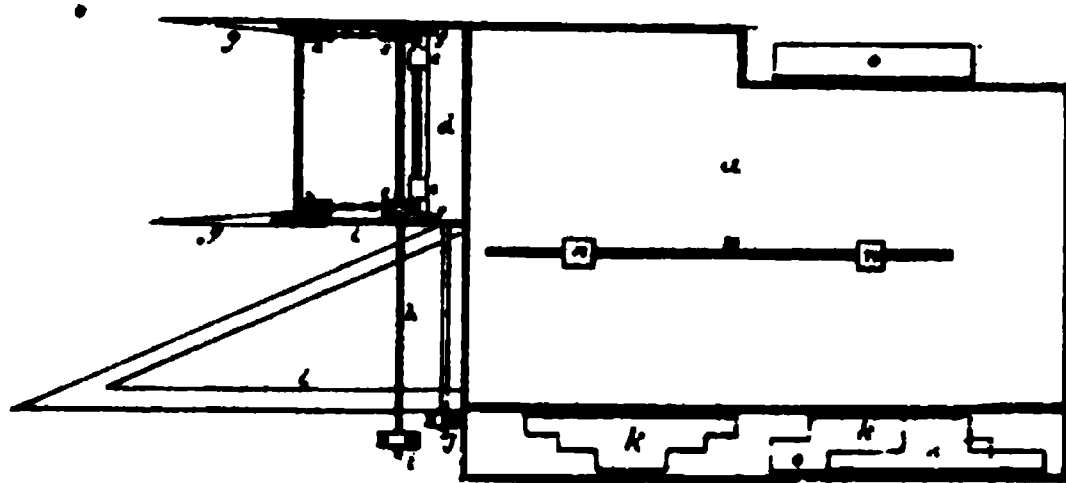


Fig. 5.



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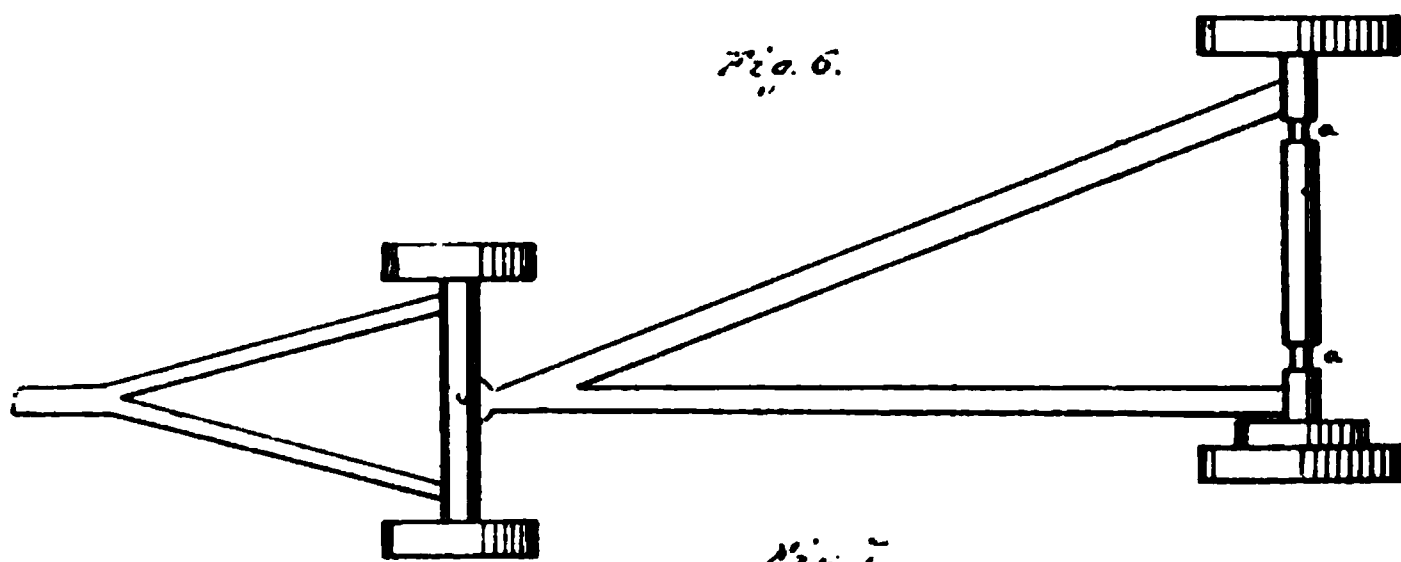


Fig. 7.

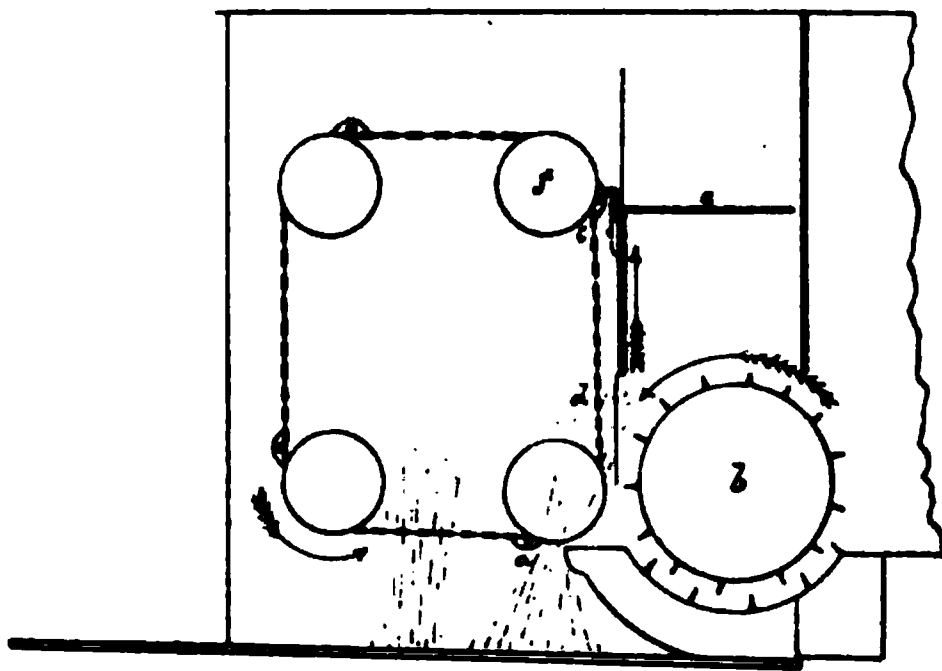
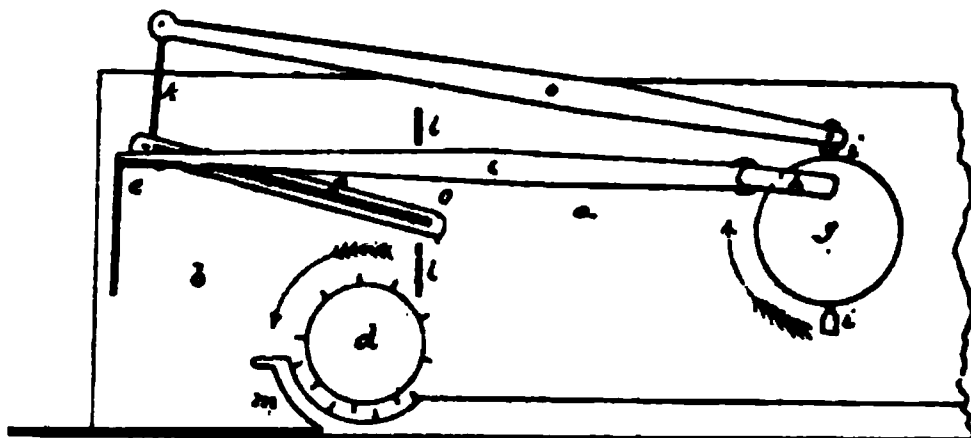
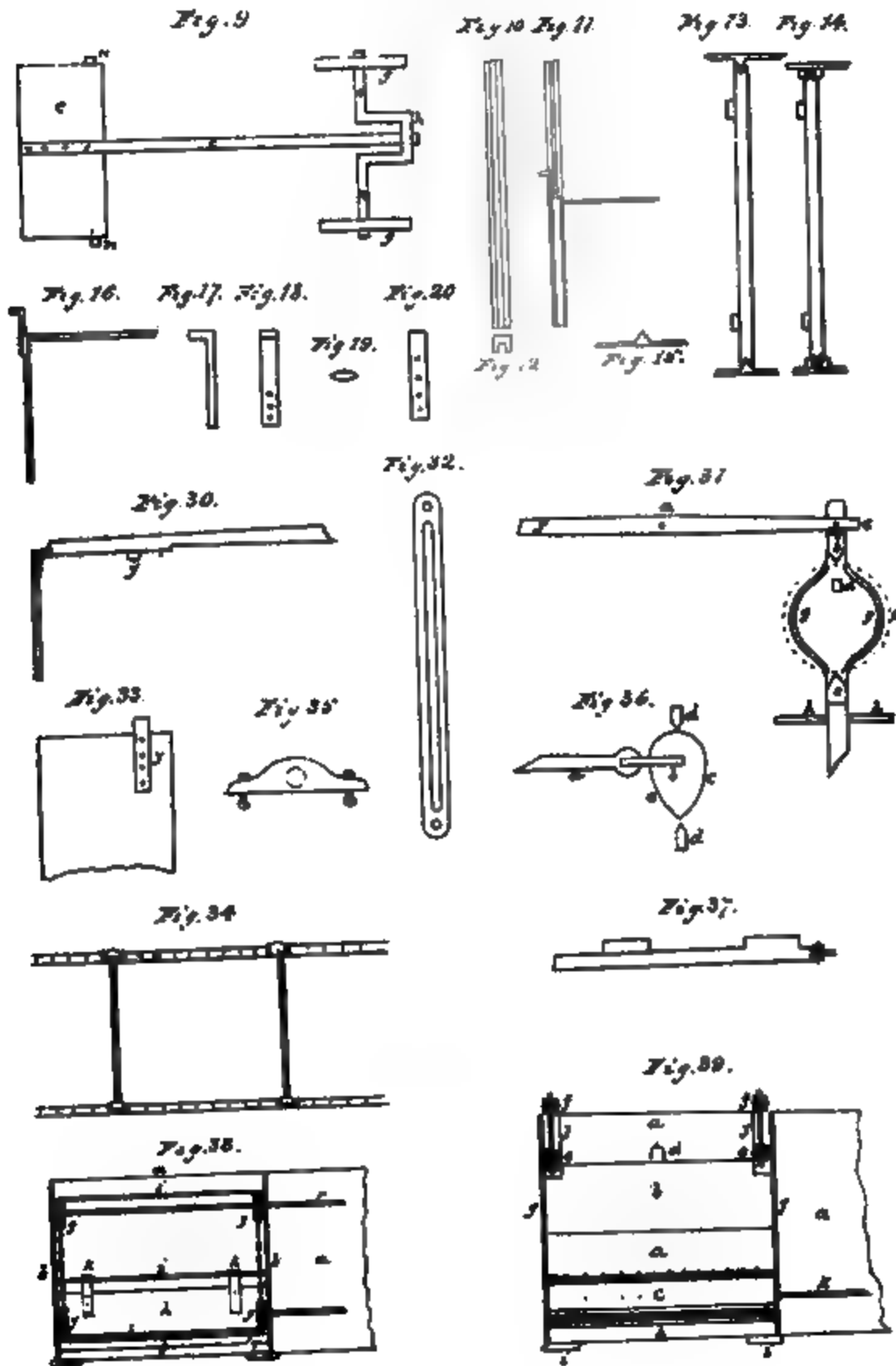


Fig. 8.



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N^o 2007 *Patented Mar. 16, 1841.*



Inventor
A. Churchill

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supports, *b*, Fig. 2, on the inner sides of which are fixed to each four small wheels, *c c c c*, Fig. 2, or, pulleys at proper distances—two at or near the top and two near the bottom of each support or side piece, *b*. The two at the top nearest the cylinder *d* have a shaft or rod, *r*, Fig. 1, passing through them, to which they are attached, which shaft and wheels are made to revolve by the power obtained from one of the hind wheels of a carriage. A chain belt, *J*, Fig. 2, is put round the four wheels thus arranged on each side. To each of these chain belts are attached the ends of rods, *h h h*, Fig. 2, which extend from one chain to the other at such distances from each other that when one rod is at the cylinder, *d*, Fig. 2, the next above it shall be at the upper wheel, so that while the rod *a* is gathering the grain to the cylinder, *b*, Fig. 7, the rod, *c*, Fig. 7, preceding, may raise the cap, *e*, Fig. 7, to a sufficient height for the grain, *d*, Fig. 7, to pass under and be dropped as the rod, *c*, Fig. 7, passes forward over the upper pulleys, *f*, Fig. 7. Another form may be constructed by attaching the cap, *e*, Fig. 4, to proper machinery to raise it, move it forward, let it descend into the grain, and then draw it back to the thrasher, *d m*, Fig. 4, bending the straw, *N*, Fig. 4, over the edge of the concave, *n*, Fig. 4, down to the cylinder, *d*, Fig. 4, and covering it while the grain, *N*, Fig. 4, is thrashed out; but the modes of gathering are so numerous, and your petitioner, believing it to be unnecessary, will not attempt to describe all of them. The cap, *c*, Fig. 2, of the cylinder, *d*, Fig. 2, may be made of any convenient form to cover the cylinder, *d*, Fig. 2, while the grain is thrashed, and at the same time so that it will assist to bend the straw, *N*, Fig. 2, over the edge of the concave down to the cylinder, *d*, Fig. 2, that the grain may be thrashed out, and at the ends fitted to grooves or guides, *f*, Fig. 2, attached to the sides, *b*, Fig. 2, or supports of the gatherer, and hooks, *g*, Fig. 2, may be attached to the front of cap *e*, Fig. 2, so that the gathering-rods, *h*, Fig. 2, may raise it and drop it at the proper time, which is when the succeeding rod has

Statement of the case.

brought the grain, N, Fig. 2, to the thrasher *i* and *d*, Fig. 2. The concave or apron of the thrasher is placed, as usual, under the cylinder, and raised about one-third of the circle up in front, and projects sufficiently forward and under the gatherer, as at *i*, Fig. 2, to enable the gathering-rods, *h*, Fig. 2, to break the grain, N, Fig. 2, down upon the cylinder. Under and attached to the lower edge of the sides or supports of the gatherer are dividing-bars, *i*, Fig. 2, of sufficient width to divide the grain so that the gatherer may receive it, which project forward of the sides and terminate in a point. The carriage-wheel in the rear of the cylinder or thrasher is placed in a recess of the grain-box, *a*, Fig. 5, so as to track where the grain is harvested. The other hind wheel of the carriage is placed nearly in a direct line of the draft of the team, from which I prefer to take the power to propel the other machinery.

The forward end of the grain-box thrasher, gatherer, &c., should be so arranged that it may be raised and lowered to suit the height of the grain, all of which is represented in the accompanying drawings, of which—

Fig. 1 is a perspective view. The parts by letters are: *a a a a a* is a box for receiving the grain; *b b*, sides and supports of the gatherer; *c c c*, carriage-wheels; *d d d d*, wheels for propelling the thrashing-cylinder and gatherer, connected by chain belts, or cog-gearing may be used; *e*, wheel and rod to move the gatherer; *f*, wheel and rod to move the thrashing-cylinder; *g g g g*, wheels which move, and on which the gathering-chains move; *h*, cap to cylinder; *i i i*, gathering-rods; *j*, concave or apron of thrasher; *k*, hook by which the gathering-rods raise the cap, *l l*, bars to divide the grain; *m m*, connecting-bars; *n n n*, standards and lever to raise and lower the forward end of machine; *p*, guide to the cap; *q*, gathering-chain; *r*, rod passing through gathering-pulleys.

Fig. 2 is a sectional view. The parts by the letters are: *a* is the side of the box; *b*, sides and supports of gatherer; *c c c c*, wheels of the gatherer; *d*, thrashing-cylinder; *e*,

Statement of the case.

cap of cylinder ; *f*, guide of the cap ; *g*, hook by which the cap is raised ; *h h h*, gathering-rods ; *i*, concave or apron ; *j*, gathering-chain ; *l*, dividing bars ; *N*, grain or straw bent to thrasher.

Fig. 4 is a sectional view of another gatherer : *a*, side of box ; *b*, side and support of gatherer ; *c*, bar by which gatherer is moved ; *d*, cylinder ; *e*, gatherer ; *f*, movable guide, in the groove of which a pin attached to the gatherer slides ; *N*, grain bent to thrasher ; *g*, eccentric wheel attached to the crank-shaft *h*, which moves the points *i i* up and down, which are attached to the lever, *j*, which is connected by *k* to the movable guide, *f* ; *l l*, bars to confine the end of box. The back and forward motion is made by the crank, *h*.

Fig. 5 is a ground-plot of the machine : *a*, grain-box ; *b b*, sides and support of gatherer ; *c c c c*, wheels of gathering-chains ; *d*, cap ; *e e*, hooks ; *f f*, guides ; *g g*, dividing bars ; *h*, rod, and *i* wheel to move gatherer ; *j*, wheel and rod to move cylinder ; *k k k*, wheels to propel cylinder and gatherer ; *l l*, connecting bars ; *m*, support to machinery ; *o o*, carriage-wheels.

Fig. 6 is a ground-plot of carriage at *a a*. The axle is rounded to fit clasps which confine the box and carriage together.

On the carriage-wheel that propels the machinery may be affixed spikes or teeth or other thing to prevent it from sliding.

The back part of the grain-box may be hung on hinges to be let down, with proper side pieces attached to unload conveniently.

Another modification of form and action of the cap, so as to make of it the "cap-gatherer," may be constructed by attaching to the cap, *e*, Fig. 4, an arm, *c*, which is connected with and moved by the crank, *h*, which crank, when in motion, gives the cap a forward and backward motion. To the shaft of the crank, *o o*, Fig. 9, may be attached eccentric wheels, *g*, Figs. 4 and 8, which, when in motion,

Statement of the case.

raise and lower the guides *f* of the cap by means of the lever *J* and points, *i i*, which are connected with the lever, *J*. The guides of the cap, *f*, are made so as to receive the points or pivots, *n n*, Fig. 9, in a groove or slot in which the points move when the cap is in motion. The eccentric-wheels should be made of such form that the cap may be raised while it is moved forward by the crank, and descend nearly in a perpendicular line when the crank has driven the cap to its greatest extent forward, and let the cap remain in that position until it is drawn back by the crank to the thrasher, *m d*, Figs. 4 and 8. The crank shaft, *o o*, Fig. 9, may pass through the grain-box and be connected with the other machinery with such convenient gearing as will give it the requisite motion; or any other machinery may be used that will give the cap the requisite motion, oscillating or revolving, to constitute it a gatherer.

Fig. 8 is the same as Fig. 4, with the cap *c* raised, showing the guide, *f*.

Fig. 9 represents the top of the cap *e* as attached to the arm, *c*, in connection with the crank *h* and eccentric-wheels, *g g*, connected with the crank-shaft *o o* and the points or pivots, *n n*.

To guide the cap and keep it in its proper place of action, a groove may be made in the end of the front piece of the cap, as at Fig. 13, and the guide an angular rib or tongue-piece attached to the sides or supports of gatherer, as represented at Figs. 13 and 15, (also see Fig. 7), or by attaching to the sides or supports of gatherer a piece of firm wood or metal, in which is formed a groove, as represented by Figs. 10, 11, 12, and the ends of the caps fitted to said grooves, as at Fig. 14. The hooks must be made of metal of sufficient strength to raise the weight of the cap by a quick motion, and attached to the cap by bolts and screws or rivets. The upper part is turned at a right angle with the part attached to the cap. (See Figs. 16, 17, and 18.) I should also say that for the purpose of shortening the length of the gathering-chain the hook may be attached to

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the cap lower down than represented by Fig. 16, for the place of attaching the hooks in that respect depends entirely upon the perpendicular length of gathering-chain and the distance to which the cap is to be raised.

Fig. 34 represents a part of gathering-chains in connection with the gathering-rods. The rods are connected to the chains by a knob made of metal of the length and width of one of the blank links, to which it is attached by screws or rivets at each end. Through the center, in the contrary direction of the screws, is made a hole to receive the rod, where it should be properly confined by a pin through the knob or screw on the end. (Knob represented by Fig. 35.)

To construct the cap as used with the revolving rods, the front is a plane surface, with hooks and grooves, as described, the perpendicular height from one and a half to two feet, less or more, according to the size of the cylinder. That part that covers the top of the cylinder should be of sufficient width to cover the whole of the space from front of the cap to the grain-box, and may be made either plane or concave, to fit the shape of cylinder; or the top part of gatherer may be stationary by confining the ends to the sides or supports of gatherer, in which case it will be necessary to place it sufficiently high to allow of the grain passing under it, when the grain is gathered to the cylinder, which will be about two feet. The cap, after being raised by means of the gathering-rods and the hooks attached, as the rod moves forward over the pulleys, leaves the hooks, and the cap descends by its own gravitation, by which and its accelerated motion it strikes the grain with sufficient momentum to break the grain down upon the cylinder after being bent over the edge of the concave by the gathering-rods. It is necessary that the front part of the cap should be made of some heavy material, as wood and iron, or iron alone.

To further elucidate and describe the modified form and action of the cap: Believing that the motion caused by the crank has been sufficiently explained, I will only refer to

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the motion and effect of the eccentric-wheels. The size and eccentricity are not material, as the motion caused by them can be varied by moving the fulcrum *a*, Fig. 31, nearer to or farther from *e*, and it may also be varied to give the cap a greater or less elevation, to suit the state of the grain—*i. e.*, if some should be short and some long at the same place, rendering it necessary to strike deeper into the grain. The center of motion, and also the crank-shaft, is *d*, Fig. 31, the eccentric-wheel *c*, dotted line. When the side of the wheel that extends furthest from the center of motion descends, it presses upon *c* and causes it to descend, as represented. Continue the motion, and the wheel presses upon *b* and drives it up, these points being connected with the lever *e f* by the circular bars *g g*, and the lever being confined by the fulcrum *a*, when *e* rises *f* must necessarily descend, and vice versa, the end of the lever *f* being connected by a rod, *k*, Fig. 8, to a guide, *f*, Fig. 8, which guide is confined at the opposite end by a bolt, *o*, Fig. 8. The ends of the lever and guide thus connected necessarily have equal motion. The guide may be made of either hard wood or metal, or a combination of both, of sufficient width and thickness to give it strength, and at the same time to admit of a groove or a slot being cut in the center of the width nearly from end to end. The length of the groove is determined by the length of the crank, and the guide must be so much longer than the slot as is necessary to admit of its being properly connected, as described above.

The length of the crank is determined by the motion that is given to it, as the quicker the motion is the shorter should be the gatherers or strokes of the gatherer or cap, and a slow motion requires long gathers, and all should be so arranged that the grain may be gathered as fast as the machine comes to it when in motion, and as the motion is derived from one of the wheels of the carriage, the team or moving power moving fast or slow will make no difference in this arrangement.

The points that move in the slot of the guide should be

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made of metal. That part which is inserted into the slot is of elliptic form, as at Fig. 19; that part flat which is attached to the cap, with bolt-holes, as at Fig. 20. The connection with the cap is by screw-bolts near the back part of the top of cap, as at *y*, Figs. 30 and 33.

The form of the eccentric-wheels is nearly that of a heart, the circle that forms the side that is in front when the point is down being of greater diameter than the opposite, as at Fig. 36. Fig. 10 is a groove-guide to cap; Fig. 11, same, with end view of cap; Fig. 12, end view of groove-guide; Fig. 13, front of cap used with rib-guide; Fig. 14, same, with groove-guide; Fig. 15, rib-guide, as attached to side of gatherer; Fig. 16, end view of cap with a hook attached; Figs. 17 and 18, different views of hook; Fig. 19, end view of point in modified form, and action of cap; Fig. 20, extended view; Fig. 30, end view of cap and section of arm; Fig. 31, *f e*, section of lever; *a*, fulcrum; *b c*, points; *c* dotted circle, eccentric-wheel; *g g*, circular bars to connect the points *b* and *c*; *d*, center of motion and crank-shaft; *h h*, fixtures to keep the points in their proper place, should enclose the lower part of the bar, so that it may move up and down through it; Fig. 32, guide representing slot; Fig. 33, section of cap, under side, showing the connection of the point or pivot; Fig. 37, side view of bar to which the points used with eccentric-wheel are connected, and end view of lever showing the connection. Figs. 34 and 35 have been referred to; Fig. 36, the shape of eccentric-wheel; *a*, section of arm; *b*, crank; *d d*, points; *c c*, wheel, all in the position that they should stand when the cap is raised and at its greatest extent forward.

Fig. 38 is front view of the revolving-rod gatherer. The parts by the letters, *a a*, section of grain-box; *b b*, sides or supports of the gatherer; *g g g g*, pulleys for the chain; *i i i*, gathering-rods; *J*, front edge of concave; *k k*, hooks; *r*, shaft of the driving-pulleys; *z*, shaft of cylinder; *l l*, dividing-bars; *y y*, chains.

Fig. 39: *a a* is section of grain-box. *b*, cap; *c*, cylinder;

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d, arm which moves the cap by means of a crank; *f f*, levers that raise the guides; *e e*, guides; *g g*, sides of gatherers; *h*, front edge of concave; *i i*, dividing-bars; *J J*, rods connecting lever and guides; *k*, shaft of cylinder. This figure represents the front view of the modified form and action of the cap with the cap raised, as in Fig. 8.

In the construction of the revolving-rod gatherer, the construction of the small wheels or pulleys upon which the chains act, and which act upon the chains, may be varied to suit the chain used, and also the mode of confining the ends of the rods may be varied to suit the form of the chain, as the form of the chain is immaterial, provided the other machinery is adapted to it. In the modified form and action of the cap two guides are required—one at each end of the cap—also two levers to move said guides, and two eccentric-wheels, one arm in the center of the cap at right angle with the top of the cap, as represented by Fig. 9. Figs. 4 and 8 represent the guide, lever, eccentric-wheel, points and their connection with each other. The extended side view of the arm and end view of cap, and by the different position in which the machinery is placed, is intended to represent its action. As stated before, two sets of the guide, lever, eccentric-wheel, points and their connections are required, one at each end of the cap, the wheels each side of the crank.

What I claim as my invention, and desire to secure by Letters Patent, is—

The method herein described of gathering and thrashing grain at the same time by means of the revolving rods or oscillating or revolving cap constituting the gatherer, in combination with the thrasher and concave, the whole being constructed and operating substantially in the manner set forth.

A. CHURCHILL.

Witnesses:

SAMUEL PLATT,
NEHEMIAHA PLATT.

Argument of counsel.

Mr. Samuel S. Fisher, for appellants, says:

It is believed that the Supreme Court in *Battin v. Taggart*, 17 How. 74 [6 Am. & Eng. 242], which has been the authority relied upon for the enlargement of claims, never intended to open the door to such an extent as to enable a patentee to lay down one invention and take up another at pleasure, or, to abandon, in his reissue, all trace of the improvement of the original patent, and substitute another device, in another part of the machine, performing an entirely different function.

Burr v. Duryee, 1 Wall. 531 [7 Am. & Eng. 224]; *Sickles v. Evans*, 2 Fish. 435; *Cahart v. Austin*, 2 Fish. 543.

An examination of the state of the art at the time of the invention of Densmore will show that he was not the inventor of the idea of hanging the driving wheel of the harvester in one frame, while the cutting apparatus was in another, so as to secure independent action between the two frames, or so that the cutting apparatus might be raised or lowered with reference to the driving wheel, while the wheel itself remained on the ground. Some modes in which this result was accomplished will be found in the patents of Churchill and Platt, and the rejected application of Cavett.

The driving-wheel of the defendants is hung in a supplementary frame, having this in common with the Platt, Churchill, Cavett & Densmore machines, but it contains a feature not found in any of those machines, which consists in the hanging of the supplemental frame to the pinion shaft of the machine so that the frame will vibrate around the pinion shaft as a center. The effect of this is to enable the pinion to be placed upon the main frame, and the driving-wheel upon the supplemental frame, and yet to keep them always in gear, whatever may be their relations to each other. This feature is covered by the Steadman patent reissue 985.

Mr. David Wright, for appellees, says:

Hence from the answer alone, it appears that so far as

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the Densmore machine is described as a reaper, the defendant's machine is not only substantially, but almost, if not quite, literally the same thing, and used to perform the same functions, in the same manner and precisely with the same result. The proof also shows the same thing. And the question recurs: Is this an infringement of the plaintiff's patent?

The principle was settled by Judge Nelson in the case of *Blanchard v. Beers*, 2 Blatch. 411. "The machine of Blanchard embraces in its scope and operation the cutting of almost every species of irregular form by means of the combination or principle which he has discovered, and it is claimed that the defendants have appropriated this combination or principle, *in order to obtain the benefit of one of the uses* of his machine. If this be so, they have infringed upon the rights of Blanchard, although their machine has been so constructed as to perform but one of the functions of Blanchard's, if they can appropriate the plaintiff's combination for one of the uses or functions, and another person may appropriate another function, and so on until there is nothing left of the machine unappropriated."

Complainant's specification of claim is the following:

"First. Hanging a driving-wheel in the supplemental frame or its equivalent, which is hinged at one end to the main frame, while its opposite end may be adjusted and secured at various heights or be left free as desired, whereby the cutting apparatus may be held at any desired height for reaping, or be left free to accommodate itself to the undulations of the ground for mowing substantially as described."

I submit that we have found the defendant's machine to contain every element of this combination, and that they in combination possess the same functions and have precisely the same operation or result, as is expressed in this claim.

And thus I submit we have proved the infringement fully. Not only that the defendants' infringed complainants' patent

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by using a substantial part of their patented improvement where they use their machine as a reaper, but that they also use the residue of it, when they use their machine as a mower.

Mr. Justice NELSON delivered the opinion of the court.

This is an appeal from the Circuit Court of the United States for the Southern District of Ohio.

The bill was filed in this case to enjoin the defendants below, Whiteley and others, from infringing the complainant's patent, originally issued to Byron Densmore, February 10, 1852, assigned to the complainant, Kirby and Osborn, July 2, 1859, and surrendered in 1859, and reissued 28th January, 1862.

(a) The patent is for improvements in harvesting and mowing machines, and consists chiefly in this, namely: The construction and combination of two frames, the one for supporting the driving-wheel, and the other for supporting the cutting apparatus and hinging the same together in such manner that the driving-wheel and cutting apparatus may each follow the inequalities of the ground independently of each other, and to be bolted rigidly together for supporting the cutting apparatus at any desired height. After giving a description of the machine sufficiently exact and precise to enable anyone skilled in the art to construct it, the claim is as follows:

“The hanging of the driving-wheel in a supplemental frame or its equivalent, which is hinged at one end to the main frame, whilst its opposite end may be adjusted and secured at various heights, or be left free as desired, whereby the cutting apparatus may be held at any given height for reaping, or be left free to accommodate itself to the undulations of the ground, for mowing, substantially as described.”

The surrender of this patent was made by the assignees

(a) Wallace begins Opinion here.

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on account of a defect in the claim, the patentee having failed to embrace within it the hanging of the driving-wheel in the supplemental frame, and its connections with the main frame to which the cutting apparatus is attached, and by means of which both the driving-wheel and cutting apparatus were made to follow the inequalities of the ground independently of each other. These devices were fully described in the specification, drawings and model, and were embodied in the construction of the first machines. The patent, we have seen, was granted February 10, 1852. The first machine was built and successfully tried in the harvest of 1850. Twenty-one were made and sold the next year (1851), and fifty or sixty the year following, all entirely successful.

The defendants set up in their answer, and gave in evidence, two patents for harvesters, which they claimed antedated this invention of Densmore.

The first, Nelson Platts', of La Salle county, Illinois, June 12, 1849; the second, Alfred Churchill's, Kane county, same State, March 3, 1841. There is no proof in the record in respect to these patents. Whether any machine was ever constructed under either of them, or went into practical use if constructed, or whether each were but an imperfect and abandoned experiment, are matters apparently regarded by the counsel who introduced them as of no great importance. Nothing appears to be known in respect to them, except that they were found among the records of the patent office, and have relation to the subject of grain harvesters. Whatever may have been their merit, however, as harvesters, they can have no material bearing that we can perceive upon this invention of the complainants, for, as it respects the peculiar device for which the present patent was granted, it is not to be found in either of them; neither in the specification or claims.

A rejected specification and drawing were also given in evidence of E. P. Covett, of Philadelphia, on the part of

11 Wall. 679.

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the defendants, on the point of novelty ; but this was an application made to the patent office as late as 1852, two years after the invention of Densmore.

This closes all the evidence in the case on the question of novelty, and which requires no further comment.

The only remaining question is as to the infringement. The defendant's answer itself goes far towards making out an infringement, stripped of the coloring generally given to a case stated in the pleadings. It is admitted, the defendant's harvester is constructed with a main frame which carries the working parts of the machine—that is, the cutting apparatus—and to this main frame is attached a secondary (supplemental) frame, which carries the driving-wheel. The secondary frame, it is said, is not left free to play up and down, but is prolonged beyond the driving-wheel to a standard in the form of an arc, that rises from the rear of the main frame. This standard is provided at various heights with holes, which secure said secondary frame, and with it, the axle of the driving-wheel, at certain fixed distances above the main frame. Defendants say that their driving-wheel is not hung upon a crank shaft, and that their main and secondary frames are binged in the opposite direction from that in which they are attached in the machine patented to Densmore. We have a model of the defendants' machine before us, and the above is a pretty fair description of it ; and it will be seen to embrace every substantial element found in the construction and arrangement of the Densmore machine. There are the two frames, the main and secondary, or supplemental, the one supporting the cutting apparatus, the other the driving-wheel, hinging the two frames together in such a way that the driving-wheel and cutting apparatus may each follow the inequalities of the ground independently of each other, and may also be bolted rigidly together for supporting the cutting apparatus at any fixed height. Every advantage in reaping or mowing uneven or stony ground by the new

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and peculiar device of Densmore in the construction and arrangement of his machine, is found in that of the defendants. The form in some parts is changed; their two frames are hinged at different ends, different names are given to the same things, and different mechanical arrangements in the gearing are used to produce corresponding results, and, as is claimed, better results, although we perceive no evidence of this in the record.

An expert, Mr. Young, an experienced machinist, engaged in building this class of machines, who had a model of the defendants before him, was inquired of if he found in its construction two powers—the one for supporting the driving-wheel, and the other for supporting the cutting apparatus. He answered that he did. He was inquired of if he found the two frames hinged together in such a manner that the driving-wheel and cutting apparatus may each follow the irregularities of the ground independently; and also, if they were bolted rigidly together for supporting the cutting apparatus at any desired height. He answered that he did. He was asked if he found the driving-wheel represented in the model as hung in a supplementary frame. He answered that he did. Also, if he found the supplementary frame hinged at one end to the main frame. He answered that he did, and that its opposite end could be adjusted at various heights, or left free as desired. Do you find these several parts so constructed and arranged that the cutting apparatus may be held at any desired height for reaping, or be left free to accommodate itself to the undulations of the ground for mowing? He answered he did.

Another witness, Mr. Dunning, supports, in all respects, the evidence above given; and there is no substantial contradiction of this account of the construction and arrangement of the defendants' machine.

There is a good deal of conflicting evidence on a point that is not at all controlling in the case, namely: whether

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the defendants' machine would work well in mowing without adjusting the wheel frame to the standard firmly at a given height. There are respectable witnesses on both sides of this question.

The decree below affirmed.

11 Wall. 681.

Patent in suit :

No. 8,720. Densmore, B. February 10, 1852. Reissue
No. 1,262, January 28, 1862. Harvester.

OTHER SUITS ON SAME PATENT :

Kirby v. Dodge & Stephenson Mnfg. Co., 1872. 10 Blatch. 307; 6
Fish. 156; 3 O. G. 181.

Cited :**IN CIRCUIT COURTS IN :**

Kirby v. Dodge & Stephenson Mnfg. Co., December, 1872. 10
Blatch. 313; 6 Fish. 156; 3 O. G. 181.

IN TEXT BOOKS:

Merwin on Pat. Invt., 1883, p. 666.

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question whether patentee is the first inventor in the absence of the statutory notice of such prior knowledge and use. (p. 453.)

[Citations in opinion of the court:]

Rubber Co. v. Goodyear, 9 Wall. 788 [p. 150, ante]. p. 453.

Hill v. Epley, 31 Pa. 381. p. 453.

In error to the Circuit Court of the United States for the District of Maryland.

Suit was brought in the court below, by the defendant in error, to recover for the alleged infringement of a certain patent. Judgment having been given for the plaintiff, the defendant sued out this writ of error.

The case is sufficiently stated in the opinion of the court.

The specifications and drawings of the letters patent, referred to in the opinion of the court, are as follows:

JOHN DU BOIS, OF WILLIAMSPORT, PENNSYLVANIA.

Letters Patent No. 36,512, dated September 23d, 1862.

The schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern:

Be it known that I, John Du Bois, of Williamsport, in the county of Lycoming, and State of Pennsylvania, have invented a new and useful improvement in building piers for Bridges, and other structures, and setting the same; and I do hereby declare that the following is a full, clear, and exact description thereof, reference being had to the accompanying drawings forming part of this specification, in which—

Fig. 1 is a sectional view illustrating a pier partly built.

Fig. 2 a similar view illustrating a pier in a further stage of progress.

Syllabus.

THE PHILADELPHIA, WILMINGTON AND BALTIMORE RAILROAD COMPANY, PLAINTIFF IN ERROR, v. JOHN DUBOIS.*

12 Wall., 47-65. Dec. Term, 1870.

[Bk. 20, L. ed. 265; 2 Whit. 329.]

Argued March 1, 1871. Decided April 3, 1871.

Particular patent. Acquiescence. Inventor. Estoppel.

1. Claim 1 of letters patent No. 36,512, J. Dubois, September, 23, 1862, Pier for Bridge, for "building and setting piers by means of a floating coffer-dam, substantially as set forth," construed to be for the instrument being the coffer-dam, constructed as described in the specification, and not to be for a process. (p. 448.)
2. The 2nd claim for "the use of the tube which constitutes the dam for encasing and strengthening the pier, substantially as set forth," construed to be for the use of the tube, whether longer or shorter, no matter what its shape or material, or of how many parts consisting. (p. 451.)
3. Where patentee remained silent and made no claim of invention at the time when defendant, while preparing to construct the thing subsequently patented, described it in his presence, but without the production of drawings, *held* that it did not tend to show fraud upon the Patent Office, and much less did it constitute a fraud in law; neither did it amount to an estoppel *in pais* against patentee, unless it misled defendant to his hurt. (p. 452.)
4. Defendants, when sued for infringement, are not at liberty to set up as a defense that the patent has been fraudulently obtained, no fraud appearing upon its face. (p. 452.)
5. Silence does not estop a party, unless it has misled another to his hurt. (p. 453.)
6. While the court may properly consider the state of the art in the construction of the patent, it has no bearing upon the

*See Explanation of Notes, page III.

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Fig. 3 is also a similar section showing a pier set and nearly completed according to my invention.

Fig. 4 is a horizontal section showing the means which are employed in the building and setting of piers according to my invention.

Fig. 5 is a plan of one section of the water-tight casing within which the stone work is laid. Similar letters of reference in the several figures indicate corresponding parts.

In the building and setting of piers for bridges and other structures in beds of rivers or streams, it has been found necessary in most instances to erect stationary coffer-dams at the points where the piers are to be located. This operation requires a water-tight chamber to be constructed up from the bed of the river, and then emptied of its water by a pumping process before the building of the pier can be proceeded with. The expense and inconvenience of this operation, as well as that of all other modes of building and setting piers in rivers, greatly enhances the cost of building bridges.

With my invention much of the inconvenience and expense thus incurred will be obviated, and a much firmer structure obtained.

To enable others skilled in the art to perform with my invention, I will proceed to describe its construction and operation.

To construct piers for a bridge across a river or stream, form a solid foundation by first driving long temporary piles, A A, into the bed of the stream outside of a given space. These piles are left extending up above the surface of the water as represented. Then either drive down between and near about the long piles, A A, other short piles, C C, or firmly embed rock or other substantial material into the earth or river bed, as represented at D, and if desirable slip down over the piles A A one or more broad and heavy stones or timbers, C', and embed the same firmly into the soil so that they rest down upon the foundation and form a flat surface. Next construct a strong timber or other

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suitable character of platform, E, and bolt to its upper side one section of a hollow rectangular or other desirable form of box or tube, F, F', F", F', F', which is used to encase and strengthen the pier. The said tube being composed of boiler plate metal or other suitable material, and its lower section F having a bolting flange, *a*, on its lower edge running inward at right angles to its sides, so as to bolt horizontally to the platform, E, as represented. This platform and section of the tube are corked and pitched or cemented so as to be water-tight at bottom and on all sides except at top, where it is fully open as shown. The first and several other sections of the tube should be strengthened laterally and longitudinally from sides and ends by means of strong rods, *b b*, as represented.

The structure, E F, should now be fitted to slide down over the sustaining and guide piles, A A, by cutting vertical holes, *c*, corresponding with the shape of the piles, through the platform, E. The structure when thus fitted to the piles and let down to the surface of the water floats by reason of its buoyancy. The upper ends of the piles are now framed together with ties, *d d*, so as to stand firm. The preparatory steps for building and setting the pier having thus been consummated, and additional sections, F', F", F", F', provided so as to be brought into use as required; the stone mason commences to lay the solid pier within the floating coffer-dam, using for the purpose common stone or other material deemed suitable, as shown in Fig. 1, at G. As soon as a sufficient height of mason work has been set in the section F, to cause the structure E and F to descend nearly level with the surface of the water, another section, F', is bolted or otherwise firmly fastened upon the top edge of section F, so as to give the proper buoyancy and safety for continuing the work as illustrated in Fig. 1. This done the mason proceeds farther with his work and builds up the pier until it again becomes necessary to increase the buoyancy, when, as illustrated in Fig. 2, he bolts on other sections, F", F", F", of boiler tubing, as shown in

Dec., 1870.] PHILA., W. & B. R

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Fig. 2, and proceeds with the br platform, E, and pier, G, rests upon the foundation, as shown i the pier above water without u tubing, and may, if he deems l other finished material, or he i the tubing to the top of the pier strength.

When the pier is completed t just above the top of the platfor connection with the weight of th eral movement of the platform a

A metal sectional boiler plate the casing for the pier, because strength at small expense, and w port the masonry of the pier. I a floating water-tight coffer-dam described might be made of wo boiler plate metal, and when the ing coffer-dam may be removed pier wholly uncovered from base

The removed structure may piers if desirable.

I have given a minute descript out my invention ; but I do not means, but desire to be protecte tion embodied in a floating coffe scribed for building and setting structures.

Having described one mode of what I claim and desire to secur

1st. Building and setting pie coffer dam, substantially as set f

2d. The use of the tube, whic encasing and strengthening the forth.

3d. The guide piles, A A, in c



Argument of counsel.

coffer dam, substantially as and for the purpose set forth.

Witness my hand and seal in the matter of my application for letters patent on improved mode of building and setting piers for bridges and other structures.

JOHN DU BOIS.

Witnesses:

ROBT. W. FENWICK,
DE WITT C. LAURENCE.

Messrs. J. H. B. Latrobe, William Schley and Thomas Donaldson, for plaintiff in error.

The first claim of the plaintiff is for the specified means of effecting the result; of placing a pier in the river or stream, in a condition of preparedness for the reception of the bridge, intended to be thrown over such river or stream. Those means embraced a floating coffer-dam constructed, used and guided as described in the specification; and also embraced the specified devices and contrivances for constructing, using and guiding the said coffer-dam, up to the point of the completeness of the pier.

That this comprehensive interpretation is true, is shown by the language of the claim itself. It is for building and setting piers. It is not for the coffer-dam nor for the use of the coffer-dam separately; but for the use of the coffer-dam described in the specification, constructed as therein mentioned, gradually lowered by the weight of the masonry, and guided in its descent by guide piles, in the manner mentioned in the specification, all co-operating to produce the result to be accomplished, namely: building and setting a finished pier in a river or stream.

The correctness of this interpretation is further shown by the language used in the first paragraph of the specification, where he claims to have invented a new and useful improvement in building piers for bridges and other structures, and setting the same. His first claim is for this improvement, and was intended to cover the whole.

In another part of the specification, after mentioning cer-

Argument of counsel.

tain preparatory steps, he proceeds to show how the platform was to be constructed ; the first section of the hollow tube to be bolted thereon, etc., for the building and setting of the pier ; and then follows a description of the whole process of building and lowering the pier in its gradually guided descent until, in his own language, "the pier rests down and becomes set upon the foundation."

A further argument in support of the construction that, in his claim, he meant to include the entirety of his alleged improvement, is furnished by the second claim, which is "For the use of the tube which constitutes the dam, for encasing and strengthening the pier, substantially as set forth." This second claim being for the tube, substantially as set forth, shows that the like words "substantially as set forth," used in the first claim, refers not to the floating coffer-dam, which is another name for the tube mentioned in the second claim, but refers to the process of building and setting the pier, as described in the specification in its entirety. A claim for a process must, of necessity, be definite, precise and comprehensive. It must be for an entirety ; not for separate parts of the means described as necessary to produce the result.

The first claim is for a process. A process may, undoubtedly, be the basis of the patent, where no part of the means employed, separately considered, is new or claimed as new. The combination of co-operating constituent elements, so combined and operating as to produce a new and useful result, or a known result in a new and useful way, is patentable. In such a case, the patent stands upon the combination or process.

Prouty v. Draper, 1 Story, 568 ; Prouty v. Ruggles, 16 Pet. 336 [4 Am. & Eng. 351] ; Davis v. Palmer, 2 Brock. 298 ; McCormick v. Talcott, 20 How. 405 [6 Am. & Eng. 410] ; Vance v. Campbell, 1 Black, 427 [7 Am. & Eng. 117] ; Burr v. Duryee, 1 Wall. 572 [7 Am. & Eng. 224] ; Eames v. Godfrey, 1 Wall. 79 [7 Am. & Eng. 158] ; Turrill v. R. R. Co., 1 Wall. 491 [7 Am. & Eng. 202] ; Case v. Brown, 2

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Wall. 320 [7 Am. & Eng. 360]; Palmer v. Wagstaffe, 25 Eng. L. & E. 537; Unwin v. Heath, 32 Eng. L. & E. 35.

In the construction given, as to the first claim, it is limited to so much of the process as is necessary to building the pier. It ignores the idea of a process for building and setting. It does not regard the guide pile as embraced by the first claim, nor the holes in the platform as part of the means employed, in the mode of accomplishing what he claims as his invention in this first claim.

This first claim is for designated means to produce a specified result, which result embraces the setting of the pier; and the means designated for the accomplishment of this result, comprehend the apparatus, devices and contrivances plainly set forth in the specification as the means employed, in connection with the buoyancy of the water, to produce the result; said means combined and co-operating substantially as set forth in the specification. And second, when the same or a like result has been produced by other and different means, such result would be attained without any infringement of the plaintiff's first claim.

It becomes a question of identity. The doctrine as to "mechanical equivalents" and as to "fraudulent evasion" can have no rightful application in a question of this kind.

We used a platform but not a platform perforated with holes for the insertion of guide piles. We used an iron tube of boiler plate metal; but not a hollow tube, with a bolting flange on its lower edge, so as to be bolted horizontally to the platform. We used no calk, pitch or cement; our tube had an iron bottom, part of the tube itself. We used the buoyancy of the water; but not in combination with plaintiff's apparatus. The buoyancy of water is a property of nature which no one can appropriate.

Now, it was very material that the jury should have been properly instructed as to this first claim. Pier No. 3, the pier in the deepest water, was guided by screws alone, without the use even of a shaping frame. Pier No. 2 was partly lowered by screws and subsequently by fall and

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block ; and was guided by furring, constituting a shaping frame. Piles were not used at all to guide the platform.

The second claim of the plaintiffs is "For the use of the tube, which constitutes the dam for encasing and strengthening the pier, substantially as set forth."

The words "substantially as set forth," require that we should recur to the specification, to see what sort of a tube is there described. And it seems to be plain that he claims a sectional caisson. His direction is, to bolt to the upper side of the platform one section of a hollow rectangular box or tube. He speaks again of the first and several other sections, and of additional sections.

But the court construes this claim as embracing the use of the tube, "whether it be first placed in position entire, or be built in sections as the masonry progresses." Now, there was evidence that one at least of the caissons was constructed entire, on shore, and then floated to its place, and set on its foundation before any masonry was put in. But the court's instruction declares the building of a pier, in such tube, to be an infringement of the second claim. In this ruling, the court, we think, was in error.

The defendant's first prayer ought to have been granted, in terms as propounded. It embodied a true interpretation of the principle of operation, as it is denominated in the specification, and which, in fact, is a process for building and setting piers in rivers and streams. We use the word "process" because it is generally used in cases of this character. The word "method" "mode" "plan" or other like term, would equally well express the idea. The distinction between a patent for a process and a patent for a machine, is shown in the various cases cited in *Corning v. Burden*, 15 How. 259 [6 Am. & Eng. 69], and in the opinion in that case, p. 267.

The eighth prayer of the defendant ought to have been granted.

Fraud and imposition in obtaining the patent were di-

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rectly charged. Strong evidence was given tending to show the alleged fraud.

In the conversation between them, Du Bois did not disclose the fact, if such was the fact, nor even pretend that he was the inventor of the mode of building and setting bridges, which Mr. Parker, as the engineer of the defendant, intended to follow in constructing and setting the piers. It is a strong case for the application of the doctrine of estoppel *in pais*. His silence was justification to Mr. Parker, in pursuing the course which he had explained to Du Bois he intended to pursue. The following cases are cited on this point :

Doe v. Oliver, 2 Sm. Lead. Cas., 7th ed. 605 ; 5 M. & R. 202, and *notes* ; *Dezell v. Odell*, 3 Hill, 219 ; *Stephens v. Baird*, 9 Cow. 277 ; *Hatch v. Kimball*, 16 Me. 146 ; *Rangley v. Spring*, 21 Me. 137 ; *Tongue v. Nutwell*, 17 Md. 212 ; *Alexander v. Walter*, 8 Gill. 247 ; *McClellan v. Kennedy*, 8 Md. 230 ; *Bk. v. Lee*, 13 Pet. 119 ; *Pickard v. Sears*, 6 Ad. & El. 469.

The ninth prayer was framed on the theory that the evidence in relation to the state of the art of building and setting piers, known at the date of plaintiff's patent, was proper to be considered by the jury on the question whether the plaintiff was the first and original inventor of what he claimed as new. The court, in its sixth instruction, limited the consideration of the state of art, to the question of damages alone. See, *Vance v. Campbell*, 1 Black, 427 [7 Am. & Eng. 117].

Messrs. William H. Armstrong, Samuel Linn and L. M. Reynolds, for defendant in error:

It was competent for Mr. Du Bois to claim and to obtain a patent for a combination, and also for such of the elemental parts of the combination as were new and useful.

Curt. Pat., 3d ed., secs. 110, 249, 332 ; *Wyeth v. Stone*, 1 Story, 273 ; *Hogg v. Emerson*, 6 How. 437 [5 Am. & Eng. 1] ; *S. C.*, 11 How. 587 [5 Am. & Eng. 279] ; *Moody v.*

Fiske, 2 Mas. 117 ; Pitts v. White v. Haworth, 4 McLean, 370.

The proper construction of the given to it by the court below, in is that it is not for a process for set contended for by defendant, but paratus to be used in building or for a platform and water-tight thereto, as described as an impro dams formerly used for such pur tube as a protection to the pier a and for a combination of the cof as described, for the purpose of pier to its foundation at the bott ing it against lateral motion, by to be cut off above the platform structures, apparatus or devices, cations, and which are to be used ing and setting piers. It is for t whatever name they should be ca cess in which they are used.

The plaintiff, after describing o his invention, proceeds to specify ters patent, thus :

1. Building and setting piers coffer-dam, substantially as set fo defendant's counsel argue, that t as set forth" refer to the preced clude the entire means used as des setting a pier. We contend that ment of a coffer-dam, substantiall the building and setting of piers.

The patent granted to plaintiff is viz: a coffer-dam, such as describe ting piers ; the tube, constituting ing the pier ; and the coffer-dam in

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guide piles. Each of these constitutes a distinct claim, and is susceptible of a separate infringement.

The first claim is not for a process, but for the use of certain specified apparatus in the building and setting of piers which may be infringed without the use of certain other elements which, in combination therewith, are made the subject of the third claim. In support of this proposition we refer to *Corning v. Burden*, 15 How. 252 [6 Am. & Eng. 69].

The tube or caisson which, with the platform, constitutes the coffer-dam, is not necessarily to be built in sections, but may consist of one entire tube, and after one section has been bolted or fastened to the platform, in the manner described in the specification, other sections are to be added, only as the same may be required by the depth of the water in which the pier is to be set.

Du Bois was under no obligation to disclose to Mr. Parker his invention and, therefore, no estoppel can result from his alleged silence; and even if under certain circumstances silence would estop him, the case as presented lacks one essential element of an estoppel *in pais*, in that there is no evidence that anything of value was expended by Mr. Parker or the defendant in ignorance of Du Bois' right. The defendant was not influenced to act by the silence of Du Bois. On this point the following cases are cited.

Com. v. Moltz, 10 Pa. 530; *Wallis v. Truesdell*, 6 Pick. 455; *Whitney v. Holmes*, 15 Mass. 152; *Miller v. Cresson*, 5 Watts & S. 284; *Can. Co. v. Hathaway*, 8 Wend. 480; *Hill v. Epley*, 31 Pa. 334; *Ream v. Harnish*, 45 Pa. 379; *Millingar v. Sorg*, 55 Pa. 225; *Chapman v. Chapman*, 59 Pa. 214.

The facts necessary to establish an estoppel *in pais*, must appear affirmatively and, therefore, there being no evidence in the case showing that defendant or Mr. Parker was misled to their hurt, there can be no estoppel, even assuming the fact of DuBois' silence.

Com. v. Moltz, 10 Pa. 530; *Hill v. Epley*, 31 Pa. 334.

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Mr. Justice STRONG delivered

The merits of the controversy case, relate mainly to the inquiry correctly construed the patent, of which the suit was brought. material question, for what is granted, and especially what the was intended to cover. Was it instrument designed for use in a cess itself? The defendants, no tended that the patent, so far as was for a process of building and consisted of driving temporary p outside of a given space; then p dation for a pier; then making suitable character of platform a surface a section of a hollow rec form of box, to be made of boile able material, strengthened late from sides and ends, by means o slide down and over the guide pi vertical holes through the platfo sonry of the pier in this box ma tions from time to time, as the masonry required, and as the bo until the platform, and pier, enc tions of the box, rested and beca tion prepared, when the guide pil the top of the timber or other stumps, in connection with the serve to prevent lateral movemen on the foundation. Holding su of the invention, the defendants construe the patent and to instru "substantially as described" in speaking of the "principle of op

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entee desired to have protected, and the words "substantially as set forth," in the first claim, refer to that process; and hence, that unless the defendants used that process as detailed, as well as the platform composing, in part, the floating coffer-dam fitted to slide down the guide piles referred to, by cutting vertical holes through it and sawing of the stumps of the piles just above the top of the platform when the pier is completed, as also the other parts of the process claimed in the first claim, the plaintiff could not recover for an infringement of that claim. (a) This instruction the court refused to give, construing the claim to be, (b) not for a process, but for a device or instrument to be employed in a process, the instrument being a floating coffer-dam, constructed as described in the specification, in which the masonry of the pier might be laid and sunk to the foundation by its own gravity.

In this, it is now insisted the court erred. We are of opinion, however, that the construction given to this claim was correct, and that the defendants were not entitled to an affirmative response to their prayer. Undoubtedly, a patentee may claim and obtain a patent for an entire combination or process, and also for such parts of the combination or process as are new and useful, or he may claim and obtain a patent for both. That this patentee did not intend by his first claim to appropriate the process of building and setting piers which he had previously described in his specification is made evident by several considerations. The words by which the claim is immediately preceded tend strongly to show this. The patentee had described the common method of building and setting piers, by a stationery coffer-dam built up from the bottom, out of which the water was pumped. The inconvenience and expense of this, he proposes to obviate. He then ad-

13 Wall. 59-60.

(a) Wallace begins opinion here and substitutes for from a-b.: "The court below refusing to give the first instruction asked for by the defendants, construed the first claim in the plaintiff's patent to be."

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The plaintiffs in error also complain that the court construed the second claim of the patent to be for the use of the tube, or material of which the dam is made, for encasing and strengthening the pier, no matter whether it be first placed in position entire or be built in sections as the masonry progresses. It is argued the claim embraced only an iron sectional tube or caisson. It is very manifest, however, that the construction given to it was right. The specification expressly describes the tube as "composed of boiler plate metal or other suitable material;" and, again, it states "that a floating water tight coffer dam, operating on the principle described, might be made of wood or other material than boiler plate metal." It is equally plain that a tube composed of sections was not exclusively meant. The claim refers to the specification, and that explains both its construction and its possible use in strengthening the piers. By reference to it, it will be seen that the tube is not necessarily constituted of several sections. Its formation is described to be, constructing a strong timber or other suitable character of platform, and bolting to its upper side one section of a hollow rectangular, or other desirable form of box or tube, which is used to encase or strengthen the pier, the tube being composed of boiler plate metal or other suitable material. This platform and section of the tube are then calked and pitched, or cemented, so as to be water-tight at bottom and on all sides, except at top, and strengthened, laterally and longitudinally, by means of strong rods. It is then complete and ready for all the uses for which it is designed. Sections are added only when required by the depth of the water, and when the tube has sunk in consequence of the masonry laid in it nearly to a level of the water surface, although, if desired, they may be continued to the top of the pier. There is nothing that would justify our holding that the claim demands a tube composed of more than one section. It is the use of the tube, whether longer or shorter, no matter

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what its shape or material, or of how many parts consisting, that the claim sought to cover.

What has been said is sufficient to show that, in our opinion, the Circuit Court did not misinterpret the first, the second or the third claim of the patentee.

The next assignment of error, not disposed of by the observations we have already made, is, that the court refused to charge the jury as requested by the defendants' eighth prayer (*c*). That prayer was, "That if the jury should find that the plaintiff, in the spring of 1861, explained his invention to the witnesses who testified upon the subject, by verbal statements only, but without reducing the same to practice by making a drawing, model, or written specification thereof; and that, prior to the application of the plaintiff for a patent, George A. Parker, the engineer of the defendants, superintending the construction of their bridge across the Susquehanna, had devised and perfected the plan afterwards pursued for building and setting the piers of the said bridge, and was actually engaged in preparing for the work of actual construction when, as testified by the said Parker, the plaintiff called on him and heard the plan described without making any claim thereto, but afterwards applied for and obtained the patent on which the present action is founded, then the plaintiff was not entitled to recover (*d*)."

The theory of this prayer was twofold. The defendants had pleaded that the letters patent of the plaintiff were obtained by fraud and imposition on the Patent Office, and the prayer assumed that his not claiming the invention when Parker described his plan for building and setting the piers of the bridge established the fraud pleaded. The prayer also assumed that the plaintiff's silence, when Parker's plans were revealed, coupled with the facts that Parker was, at the time, preparing for the work of actual construction, that he subsequently proceeded with his plan, and that the plaintiff's patent was afterwards ap-

(*c-d*) Wallace omits from *c-d*.

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plied for and obtained, amounted to a fraud upon the Patent Office, and was a fraud in law, so as to justify the plaintiff in his action. A defendant who sues for an infringement, where the defense is that the patent had been obtained by fraud appearing upon its face. 9 Wall. 788 [p. 150, *ante*].

Nor was there any case presented which amounted to an estoppel. No more than that a party is not estopped by his own fraud if he has misled another to his hurt. There was no evidence of any such fraud or fraud in the case. The court on September 23, 1862. It nowhere appears that the defendants had expended one penny. Moreover the point does not depend upon the discovery by Parker of the plaintiff's invention of which it speaks took place for no reason found in the evidence for which the plaintiff's plans had been revealed to the defendants whom the plaintiff had partially deceived in that conversation. The court could not be given the instruction asked, even if there was an obligation to disclose his invention. We are not prepared to assert.

The only remaining assignment of error is the declining to instruct the jury as to the question whether the plaintiff was the first and original inventor of the invention in his patent, they might and ought to be instructed in the cause in relation to the state of the art and setting of the plaintiff known at the time of the invention of the plaintiff. Upon this sub

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the jury that they had a right to take into consideration the knowledge which they might find to have been possessed, prior to the date of the plaintiff's patent, by the several witnesses whose names were given in the notice of defense, and who had been examined; and also the description of such construction in Mahan's Civil Engineering, and the patent of George A. Parker, and also all description of his invention made by the plaintiff to any one prior to the date of his patent in 1861 or 1862, and also the conversation (whatever they might find it to have been) between the plaintiff and the engineer of the defendants in 1862, prior to the date of the plaintiff's application for a patent. This was all the defendants had a right to ask. They had given notice of nothing more. They had not apprised the plaintiff that the novelty of his invention would be assailed by any other evidence than such as they had particularized in their notice of defense. While, therefore, evidence in regard to the state of the art was proper to be considered by the court in construing the patent and determining what invention was claimed, it had no legitimate bearing upon the question whether the patentee was the first inventor.

The decree of the Circuit Court is affirmed.

12 Wall 64-65.

Notes :

1. Patent claims construed to be for a machine and not for a process:

Le Roy v. Tatham, 14 How. 156 [5 Am. & Eng. 313].

Corning v. Burden, 15 How. 252 [6 Am. & Eng. 69].

Grier v. Wilt, 120 U. S. 412.

Dryfoos v. Wiese, 124 U. S. 32.

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4. In infringement proceedings letters patent cannot be collaterally impeached for fraud:

Notes and Citations.

Rubber Co. v. Goodyear, 9 Wall. 788. [p. 150, *ante*.]
Eureka Co. v. Bailey Co., 11 Wall. 488. [p. 280, *ante*.]
Seymour v. Osborne, 11 Wall. 516. [p. 290, *ante*.]

6. Evidence of the state of the art admissible without notice:
Vance v. Campbell, 1 Black. 427 [7 Am. & Eng. 117].
Brown v. Piper, 91 U. S. 37.
Dunbar v. Myers, 94 U. S. 187.
Bridge Co. v. Iron Co., 95 U. S. 274.
Eachus v. Broomall, 115 U. S. 429.
Grier v. Wilt, 120 U. S. 412.
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Want of novelty (prior knowledge and use) cannot be set up
without notice:

Blanchard v. Putnam, 8 Wall. 420. [p. 107, *ante*.]
Eureka Co. v. Bailey Washing Co., 11 Wall. 488 [p. 280,
ante]; and see
Wise v. Allis, 9 Wall. 737. [p. 143, *ante*, note 1.]

Patent in Suit:

No. 36,512. Du Bois, J. September 23, 1862. Pier for
Bridge.

OTHER SUITS ON SAME PATENT:

Du Bois v. Phila., Wil. & B. R. Co., 1871. 5 Fish. 208,

Notes and Citations.

Cited:

IN SUPREME COURT IN :

Grier *v.* Wilt, 1887. 120 U. S. 412; Bk. 30, L. ed. 712.

IN CIRCUIT COURTS IN:

La Baw *v.* Hawkins, September, 1874. 1 Ban. & Ard. 428.

Union Paper Bag Machine Co. *v.* Pultz & Walkley Co., August, 1878. 15 Blatch. 164; 3 Ban. & Ard. 403; 15 O. G. 423.

Dederick *v.* Cassel & Krupp, October, 1881. 9 Fed. Rep. 306; 20 O. G. 1233; 14 Phila. R. 503.

IN TEXT-BOOKS :

2 Abb. Pat. Law, 1886, p. 294.

Curtis on Pats., 4th ed., §§ 249 *b*, 389 *a*.

Merwin on Pat. Inv't., p. 707.

Walker on Pats., 1883, pp. 125, 226, 233.

[illegible]

Syllabus.

UNITED STATES, APPELLANT, *v.* WILLIAM W. BURNS.*

12 Wall. 246-254. Dec. Term, 1870.

[Bk. 20, L. ed. 388; 2 Whit. 344.]

Affirming Burns' case. 4 Ct. of Claims, 113.

Argued October 20, 1871. Decided November 6, 1871.

Contract. Army officer. Right to patent. Government cannot use patent. Rebellion. Pleading and practice in Court of Claims.

1. A contract entered into on behalf of the United States with an army officer, which amounted to a license from him to the government to manufacture or procure his patented tent and use it, upon payment of a stipulated sum, and which was approved by the Secretary of War, *held* a valid contract and not within the prohibition of army regulation No. 1,002, forbidding certain purchases and contracts by and with officers or agents in the military service. That regulation does not apply to contracts on behalf of the United States, which require for their validity the approval of the Secretary of War. (p. 464.)
2. If an officer in the military service, not specially employed to make experiments with a view to suggesting improvements, devises a new and valuable improvement in arms, tents or any other kind of war material, he is entitled to the benefit of it, and to letters patent for the improvement from the United States, equally with any other citizen not engaged in such service; and the government cannot, after the patent is issued make use of the improvement any more than a private individual, without license from the inventor or making compensation to him. (p. 464.)
3. Where a license to make and use a patented tent was granted by an army officer, the patentee, to the United States, stipulating for the payment of a certain sum, and to continue beyond a certain date unless licensee gave notice to the con-

*See Explanation of Notes, page III.

Statement of the case.

trary, and subsequently licensee directed the payment to be discontinued and withheld, but continued to manufacture and use the tents, *held* that it was no termination of the contract, neither was it a repudiation of licensee's liability for the tents made prior or subsequent to the withholding of the payments. (p. 465.)

4. Where subsequent to a contract made with the United States respecting a patented article the owner of the patent, an army officer, assigned a half interest in the same, to another officer B., and A. joined the rebels while B. remained loyal, *held* on suit brought by B. in the Court of Claims to recover certain payments under the contract that B.'s interest could not be affected by the disloyalty of his joint owner A.; and that the Government having recognized B.'s half interest and paid him a moiety of the royalty due under the contract, his interest became severed from the claim of his joint owner A., and that the necessity of pleading in their joint name, if both were living, did not apply to a case in the Court of Claims. (p. 466.)
5. The Court of Claims in deciding upon the rights of claimants is not bound by any special rules of pleading. (p. 466.)

Appeal from the Court of Claims.

The petition in this case was filed in the court below by the appellee, to recover for the use of a certain patent for making conical tents. The court found the facts to be as follows: "That a patent for making an improved conical tent was issued to H. H. Sibley, in 1856; that in 1858 a proposition was made to Jones, agent for the Sibley tent, by Assistant Quartermaster General Thomas, to pay \$5.00 royalty for every such tent made by the United States, as long as this agreement may be confirmed by the War Department, which proposition was accepted, to hold good until January 1, 1859, and longer, unless notice to the contrary should be given by the patentee; that an assignment of one-half interest in said patent was made by the patentee to the petitioner; that the patentee at the time of perfecting said patent was an officer of the United States Army; but that, subsequently, he resigned his commis-

Statement of the case.

sion and joined the Confederates; that the petitioner was also an officer in the United States army and continued loyal; that the United States used a large number of said tents, on which the royalty had not been paid; that Quartermaster General Meigs, by letter called the attention of the Secretary of War, in connection with this royalty, to paragraph 1002 Revised Regulations of the Army, 1861, which is as follows:

‘1002. No officer or agent in the military service shall purchase from any other person in the military service, or make any contract with any such person to furnish supplies or services, or make any purchase or contract in which such person shall be admitted to any share or part, or to any benefit to arise therefrom.’

Upon this communication Secretary Cameron indorsed as follows:

‘No further payments will be made to Major W. W. Burns on account of royalty on the Sibley tent.

SIMON CAMERON,
Secretary of War.’ ”

And the court found as conclusion of law:

1. That the contract between the United States and Major Sibley, made February 18, 1858, was valid in law, and was not determined by the order of Secretary Cameron of December 26, 1861.

2. That the assignment of Major Sibley to the petitioner, made April 16, 1858, was valid in law, and that by that and the facts above found, the petitioner became entitled to one-half of the royalty of \$5.00 on 40,497 tents, made and procured by the United States, as above stated; that this sole action of the petitioner for said one-half of the royalty is well brought under act of March 3, 1862, ch. 92.

Judgment is to be entered for the petitioner for one-half of the royalty or \$2.50 on each of 40,497 tents, amounting to the sum of \$101,242.50.

Whereupon the defendant took an appeal to this court.

Argument of counsel.

Messrs. B. H. Bristow, Solicitor General, T. H. Talbot, and C. H. Hill, Assistant Attorney General, for appellant:

The court has found as a fact, that the terms proposed in the letter of Jones to Thomas were approved by the Secretary of War, and a contract was made between the United States and Jones according thereto, and without regard to Thomas' previous letter. But this finding was erroneous in point of law. Jones' letter tendering the contract, must be read in the light of Thomas' letter, to which it was a reply, and the question as to what is the meaning of these two letters together, is a question of law and not of fact.

Turner v. Yates, 16 How. 14; *Macbeth v. Haldimand*, 1 T. R. 172; *Hutchison v. Bowker*, 5 M. & W. 534; *Smith v. Faulkner*, 12 Gray, 251.

The terms proposed in Thomas' letter, to pay a certain sum for each tent "As long as this agreement may be confirmed by the War Department" was a direct reservation of a power to the War Department, to determine the contract.

The natural and proper construction is, that those propositions in Thomas' letter which did not conflict with Jones' reply, and particularly this one now referred to, were adopted by Jones as the basis upon which he founded his proposition.

The agreement of April 15, 1858, between Burns and Sibley, was an agreement of partnership. Sibley and Burns were going into the business of introducing and selling this patent, and towards the joint undertaking Sibley gives Burns an interest in the nature of a license jointly with him. No apt words are used from beginning to end, for assigning any interest to Burns in the patent itself, or giving him any right to bring a suit in his own name respecting it.

This construction is strengthened by the fact that this instrument was never recorded in the Patent Office, in a manner directed by section 11 of the Patent Law of 1836

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(5 Stat. at L. 121) for, although an assignment of a patent is not avoided by the omission to record it, yet in the case of an instrument whose meaning is doubtful, the fact that it is not recorded is strong evidence that the parties did not regard it as, in legal effect, an assignment.

If this agreement gave Burns a right to have one-half interest in the patent assigned to him, it was a merely equitable right, which could not operate as an assignment as against third parties, until an actual assignment had been made in pursuance of it.

But if he had any interest in this contract, it was purely an equitable one, and not one upon which he could sue the Government. *Bonner v. U. S.*, 9 Wall. 156.

But the partnership existing between Sibley and Burns, and the rights of Burns thereunder in the contract, previously made between Sibley and the United States, would be terminated by Sibley becoming a public enemy at the breaking out of the war. That a partnership is dissolved by one of the partners becoming a public enemy, admits of no question.

Griswold v. Waddington, 15 Johns. 57; S. C., 16 Johns. 438; Story, Part. secs. 315, 316.

By Sibley's becoming a public enemy, too, the contract between him and the United States became, to say the least, suspended during the continuance of the war. It is, therefore, difficult to conceive how Burns, whatever his rights may have been before, had any longer any rights against the United States. It may be doubtful whether, by becoming a rebel, Sibley did not forfeit all his rights under the letters patent, but certainly the continued use of his patent by the Government during the war (as appears by the Quartermaster General's letter) was not under the contract; and as Burns was no party to the contract, and had no rights under it, except through Sibley, his rights could be no greater than those of Sibley himself.

October 26, 1861, the Quartermaster General called the attention of the Secretary of War to the matter of the roy-

Argument of counsel.

alty allowed Burns, and the Secretary, December 26, directed that no further payment should be made to him. If the counsel for the United States are right in their construction of the contract originally made between the United States and Sibley, the Secretary of War had a right to determine it at any time, and it is insisted that this direction did so terminate it. It is said that no notice of this direction was given to Burns. But the Government ceased to pay any royalty to him, which would seem to be a very effective form of notice. If no particular form of terminating the contract had been agreed upon, any action of the Secretary of War which was totally irreconcilable with the continuance of the contract would operate as a termination of it; and forbidding the Quartermaster General to pay the royalty which the Government had agreed to pay under the contract, was certainly totally irreconcilable with an assumed continued existence of it.

Messrs. James Hughes, Denver & Peck, and M. H. Carpenter, for appellees :

1. General Burns was a joint owner of the invention (Sibley Tent) with Sibley, and his interest antedated the letters patent and the contract with the United States.

2. Burns occupied toward Sibley the relation both of a joint owner and a partner in the invention and in all its benefits, including the letters patent and the contract with the United States for a royalty.

3. The contract of the United States, to pay a royalty for the use of the tent, was made with W. E. Jones, "as the agent for the Sibley Tent" and as it stood originally, was a joint contract with Sibley and Burns.

4. On this contract, upon the facts found, a separate action by Burns in the Court of Claims was well brought.

5. The acts of the parties, after discontinuing the payment of Sibley's moiety of the stipulated royalty, constitute a new contract with Burns separately, upon which his suit was well brought.

Opinion of the court.

6. Sibley can maintain no suit against the United States, nor enforce any claim against them, without the express assent of Congress.

7. In the United States, the treason of one partner does not forfeit the rights or property of another.

Story, Part., secs. 9, 240, 315, 316, and *n.*; also sec. 304, and *n.* 4.

Mr. Justice FIELD delivered the opinion of the court.

Upon the facts found by the Court of Claims, we are of opinion that the contract entered into on behalf of the United States with Major Sibley, by which the Government was authorized to make and procure as many of the Sibley tents as it might require, by paying the sum of \$5 for each tent, was a valid contract, and not within the prohibitions of the Army Regulation, number 1,002. That Regulation does not apply to contracts on behalf of the United States, which require for their validity the approval of the Secretary of War. Though contracts of that character are usually negotiated by subordinate officers or agents of the Government, they are in fact and in law the acts of the Secretary, whose sanction is essential to bind the United States. The Secretary, though the head of the War Department, is not in the military service in the sense of the regulation, but, on the contrary, is a civil officer with civil duties to perform, as much so as the head of any other of the Executive Departments.

It would be carrying the regulation to an absurd extent to hold it was intended to preclude the War Department from availing itself, by purchase or any other contract, of any property which an officer in the military service might acquire, if its possession or use were deemed important to the Government. If an officer in the military service, not specially employed to make experiments with a view to suggest improvements, devises a new and valuable improvement in arms, tents, or any other kind of war mate-

Opinion of the court.

rial, he is entitled to the benefit of it and to letters patent for the improvement, from the United States, equally with any other citizen not engaged in such service; and the Government cannot, after the patent is issued, make use of the improvement any more than a private individual, without license of the inventor or making compensation to him.

In the present case there is no question of the right of Sibley to the improved conical tent. He received a patent for the improvement in April, 1856, and, by the contract with him, the United States recognized his right to it, and to compensation for its use.

The contract was nothing more, in fact, than a license from him to the Government to manufacture or procure the tent, and use it, upon payment of a stipulated sum. By its terms the license extended until the 1st of January, 1859, and longer unless the United States were notified to the contrary. The power of determining this license thus remained with the patentee after that period, but the United States could also at any time have determined their liability by ceasing to make the tents. It does not appear that either party ever desired the termination of the license. Neither Sibley nor Burns, who had become, as hereafter stated, equally interested with Sibley in the contract, ever expressed any intention to withdraw the license; and the United States continued to make and use the tents until the whole number were obtained, for which the present claim is asserted. The order of the Secretary in December, 1861, declaring that no further payment should be made to Burns on account of the royalty on the tent, was not intended, in our judgment, either as a repudiation of the liability of the United States to him for the tents previously procured, amounting to over 38,000, or of their liability to him for any tents that might be subsequently made, but only to leave the rights of Burns, connected as they were with a patent issued to one who had resigned his commis-

Opinion of the court.

sion in the National army and entered the Confederate service, to be determined by the proper judicial tribunals. If the Secretary had intended to terminate the contract, something more would have been required on his part, whilst the United States continued to manufacture and use the tents, than a mere direction to withhold the payments stipulated for such manufacture and use.

Burns, as we have said, had become equally interested with Sibley in the contract with the United States. In April, 1858, Sibley had executed to him an assignment of "the one-half interest in all the benefits and net profits arising from and belonging to the invention," from and after the 22d of February, 1856, a period anterior to the issue of the patent. Whether this assignment be held to have transferred a legal title to one-half of the patent itself is not, in our judgment, important. It passed a half interest in the contract of Sibley with the Government, and the right to a moiety of the royalty stipulated by that contract.

The War Department recognized this half interest of Burns and, until the order of the Secretary in December, 1861, paid a moiety of the royalty to him. It thus severed his claim under the contract from that of Sibley. But independent of this fact, the rights of Burns in the contract and the compensation stipulated could not be forfeited nor impaired by the disloyalty of his associate. He was true in his allegiance to the Government and served in the army of the Union. His claim could, therefore, be presented and considered in the Court of Claims by the act of March 3d, 1863. His associate, Sibley, is at the same time barred by that act of any action there, either joint or several, by reason of his disloyalty. The act does thus, in fact, sever their claims, allowing the claim of one to be prosecuted, and barring that of the other. The technical rule of pleading in an action in a common law court, by which a contract with two must be prosecuted in their joint names, if

Notes and Citations.

both are living, has no application to a case thus situated. And the Court of Claims, in deciding upon the rights of claimants, is not bound by any special rules of pleading.

We see no error in the ruling of that court, and therefore its judgment is affirmed.

12 Wall. 354.

Notes:

2. The United States cannot use a patent without compensating inventor:

Cammeyer v. Newton, 94 U. S. 225.

James v. Campbell, 104 U. S. 356.

United States v. McKeever, 23 O. G. 1530.

On the jurisdiction of Court of Claims in suits under letters patent against the United States or its officers. See

James v. Campbell, 104 U. S. 356.

United States v. McKeever, 23 O. G. 1530.

Hollister v. Benedict Mnf. Co., 113 U. S. 59.

Patent in suit:

No. 14,740. Sibley, H. H. April 22, 1856. Tent.

OTHER SUITS ON SAME PATENT:

Burns' Case, 1868. 4 Court of Claims, 113.

Notes and Citations.

Cited:

IN SUPREME COURT IN:

Cammeyer v. Newton, 1877. 94 U. S. 225; Bk. 24, L. ed. 72.
Fletcher v. Blake, 1880. Bk. 26, L. ed. 156.

IN CIRCUIT COURT IN:

Lawrence v. United States, December, 1872. 8 Ct. of Cl. 252.
Brady v. Atlantic Works, September, 1876. 4 Cliff. 416; 2 Ban. & Ard. 436; 10 O. G. 702.
Burke v. United States, December, 1877. 13 Ct. of Cl. 231.
McKeever's Case, December, 1878. 14 Ct. of Cl. 396.
Campbell v. James, August, 1879. 17 Blatch. 42; 4 Ban. & Ard. 456; 18 O. G. 979; 8 Reporter, 455.
Colgate v. International Ocean Tel. Co., November, 1879. 17 Blatch. 311; 4 Ban. & Ard. 609; 17 O. G. 194; 9 Rep. 166.
Thomas v. United States, December, 1879. 15 Ct. of Cl. 335.
Morse Arms Mnfg. Co. v. United States, 1880. 16 Ct. of Cl. 301.
Brown v. District of Columbia, December, 1881. 17 Ct. of Cl. 303.
Little v. United States, March, 1884. 19 Ct. of Cl. 323.
Cape Ann Granite Co. v. United States, 1885. 20 Ct. of Cl. 16.
Hubbell v. United States, 1885. 20 Ct. of Cl. 365.
Solomons v. United States, June, 1886. 21 Ct. of Cl. 479.
Mrs. Henry's Case, January, 1887. 22 Ct. of Cl. 75.

IN TEXT-BOOKS:

Walker on Pats., 1883, p. 107.

[illegible]

Arguments of counsel.

FRANKLIN PHILP ET AL., PLAINTIFFS IN ERROR,
v. JOSEPH NOCK.*

18 Wall., 185-187. Dec. Term, 1871.

[Bk. 20, L. ed. 567; 2 Whit. 351.]

Argued February 9, 1872. Decided February 19, 1872.

Right of appeal. Act 1861. Act 1870.

1. The patent law of February, 1861, gives to parties to suits arising under any law of the United States giving to inventors the exclusive right to their inventions or discoveries a writ of error on appeal without regard to the sum in controversy. The Act of 1870 does not alter the right of appeal or to a writ of error in this respect. (p. 472.)

In error to the Supreme Court of the District of Columbia.

This was an action in the court below by Nock, as an original inventor of a hinge for inkstands, for the infringement of his patent. The plaintiff laid his damages at \$5,000. The defendants pleaded the general issue. The plaintiff obtained a verdict and judgment for \$500, and the defendants sued out this writ of error.

A motion is now made to dismiss for want of jurisdiction.

Mr. George W. Paschal, for defendant in error, in support of the motion.

It is insisted for the plaintiffs in error that appellate jurisdiction is given under the Act of February 18, 1861, 12 Stat. at L. 130, because it is a controversy in law, arising under a law of the United States, granting and confirming to an inventor the exclusive right to his invention, etc.

We submit that a suit against a naked infringer of a patent is not within the letter and certainly not within the spirit of that act. That act may well apply to the interference cases arising between rival patentees, or to controver-

* See Explanation of Notes, page III.

Argument of counsel.

sies between such patentees, or those claiming under them, without allowing a naked trespasser the benefit of appeal, simply because he disputes the validity of the patent. The assumption really is, that the validity of every patent may be attacked by any trespasser, in a collateral way, which is wholly inadmissible. The grounds of defense which may be urged, as decided by this court, are embodied in sec. 51 of the Act of 1866.

See *Rubber Co. v. Goodyear*, 9 Wall. 797 [p. 150, *ante*]; *Eureka Co. v. Bailey Co.* [p. 280, *ante*].

A careful reading of the cases under section 17 of the Act of 1836, leads to the conclusion that such appeals only lie in cases which properly involve the construction of the patent laws; where no amount can be said to be involved, but only the rights of inventors to the benefit of their discoveries, as against the government or other inventors.

Hogg v. Emerson, 6 How. 478 [5 Am. & Eng. 1]; *Allen v. Blunt*, 2 Wood. & M. 155; *Wilson v. Sandford*, 10 How. 101 [5 Am. & Eng. 122].

It is insisted, however, that all doubt upon the subject is removed by sec. 56 of the patent law of July, 1870, 16 Stat. at L. 207.

This act was not in force when the judgment was rendered, and the writ of error sued out.

The argument is, that the words "touching patent rights" are sufficiently comprehensive to embrace every possible controversy in which patentees may be engaged about their patents. But, taken in connection with the preceding sections, it is clear that the appeal has reference only to such jurisdiction as is given by that act itself.

It will be seen by reference to the bills of exception that the defense was in no manner brought within the purview of section 61 of the act, and hence the appeal is not within the purview of section 56.

No defense was admissible touching patent rights, or the validity of the patent, under the pleadings, as is settled in *Silsby v. Foote*, 14 How. 218 [5 Am. & Eng. 411]; *Rubber*

Notes and Citations.

Co. v. Goodyear, 9 Wall. 797 [p. 150, *ante*]; Seymour v. Osborne [p. 290, *ante*]; Agawam Co. v. Jordan, 7 Wall. 596 [p. 24, *ante*]; Teese v. Huntingdon, 23 How. 10 [7 Am. & Eng. 72].

Mr. R. D. Mussey, in opposition to motion.

Mr. Chief Justice CHASE delivered the opinion of the court.

The patent law of February, 1861 (12 Stat. at L. 130), gives to parties to suits arising under any law of the United States giving to inventors the exclusive right to their inventions or discoveries, a writ of error or appeal to the Supreme Court of the United States without regard to the sum in controversy. The Act of 1870 (16 Stat. at L. 207) does not alter the right of appeal or to a writ of error in this respect.

The motion to dismiss the writ of error in this case must, therefore, be denied.

13 Wall. 187.

Patent in Suit:

No. 10,310. Nock, Joseph. Dec. 13, 1853. Inkstand Lid.

OTHER SUITS ON SAME PATENT:

Philp v. Nock, 17 Wall. 460.

Cited:**IN TEXT-BOOKS:**

2 Abb. Pat. Law, 1886. p. 278.
Walker on Pats., 1883. pp. 382, 446.

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Syllabus.

WILLIAM TUCKER, PLAINTIFF IN ERROR v. NATHAN W. SPAULDING.*

13 Wall. 453-456. Dec. Term, 1870.

[Bk. 20, L. ed. 515; 2 Whit. 336; 1 O. G. 144.]

Argued November 20, 1871. Decided January 22, 1872.

Infringement a question for jury. Invention. Double use. Expert evidence. Prior patent.

1. When suit for the infringement of a patent is brought in the law in preference to the equity side of the court, the question of the diversity or identity of the invention covered by plaintiff's patent with an alleged prior invention, must be submitted to the jury, if there is such resemblance as raises the question at all. (p. 490.)
2. Where a prior instrument for "cutting tongues and grooves, mortises, &c.," was set up as invalidating a patent for a saw in some respects similarly constructed. *Held* that if what the former instrument actually did was in its nature the same as sawing, and its structure and action suggested to the mind of an ordinarily skillful mechanic this double use to which it could be adapted, without material change, then such adaptation to the new use was not a new invention and was not patentable. (p. 491.)
3. Where the bill of exceptions showed that in a suit at law for the infringement of a patent the court below refused to admit the testimony of experts to prove the identity of the invention with that covered by a prior patent, confessedly prior in date to that of plaintiff, and refused to permit such prior patent to be read to the jury. *Held* that these rulings were erroneous, and a new trial was ordered. (p. 491.)

[Citations in opinion of the court:]

Bischoff v. Wethered. 9 Wall. 812 [p. 213, *ante*]. p.

This case came up on a writ of error to the Circuit Court of the United States for the District of California. The

* See Explanation of Notes, page III.

Statement of the case.

suit was brought by Nathan W. Spaulding, for an alleged infringement of certain letters patent granted him September 10, 1861, and reissued April 21, 1863, for an improvement in saws, the improvement consisting substantially in the use of detachable teeth, secured in sockets in the saw plate, by means of rivets, and having the front, back and base formed on right lines, while the corners were made circular.

The defendant for the purpose of disproving the claim of originality in the alleged invention described in the plaintiff's patent, offered to the court and the jury a certified copy of certain letters patent granted to Jonah Newton, June 19, 1855, for "a new and useful method of securing cutters to rotary disks."

The object of the Newton invention, as stated in the specification, is for "cutting tongues, and grooves, mortises, &c.," and the patent shows a plate of square form hung upon a rotating shaft, and having a projection at each angle. In these projections there are formed concave seats, and a corresponding form is given to the cutters, which are then secured in said seats by means of screw-bolts which pass through the cutters and the projections, and lie in the plane of the disk.

The defendant further offered to prove by experts that the process described in the said patent, the machines made thereunder, and the result produced thereby, were substantially the same process, machine, and result, as were involved in plaintiff's patent.

The court, upon objection made by plaintiff's counsel, ruled that the said Newton patent was not for the same invention described in plaintiff's patent, and was inadmissible, and consequently excluded it from the evidence. The court also excluded from the consideration of the jury the proffered testimony of experts to the effect that the cutters in the Newton patent were, in reality, nothing but detachable saw teeth inserted on circular lines and rounded at the base, and inserted in circular sockets in such a way as to

Statement of the case.

secure an equal distribution of the pressure brought to bear upon the cutters over and upon the sockets in which they are set, and thus prevent the fracturing of the disk or plate—the thing which forms the special object of plaintiff's invention.

To these rulings of the court bills of exceptions were duly filed, and upon such exceptions the case was considered by the Supreme Court.

Various other exceptions were taken to the rulings of the court below ; but, as the above are the only points considered by the higher tribunal, no special mention need be made of such other exceptions.

The specifications and drawings of the patents referred to in the opinion of the court are as follows :

NATHAN W. SPAULDING, OF SAN FRANCISCO,
CALIFORNIA.

IMPROVEMENT IN SETTING TEETH IN SAWS AND SAW-
PLATES.

Specification forming part of Letters Patent No. 33,270, dated September 10, 1861; Reissue No. 1,456, dated April 21, 1863.

To all whom it may concern :

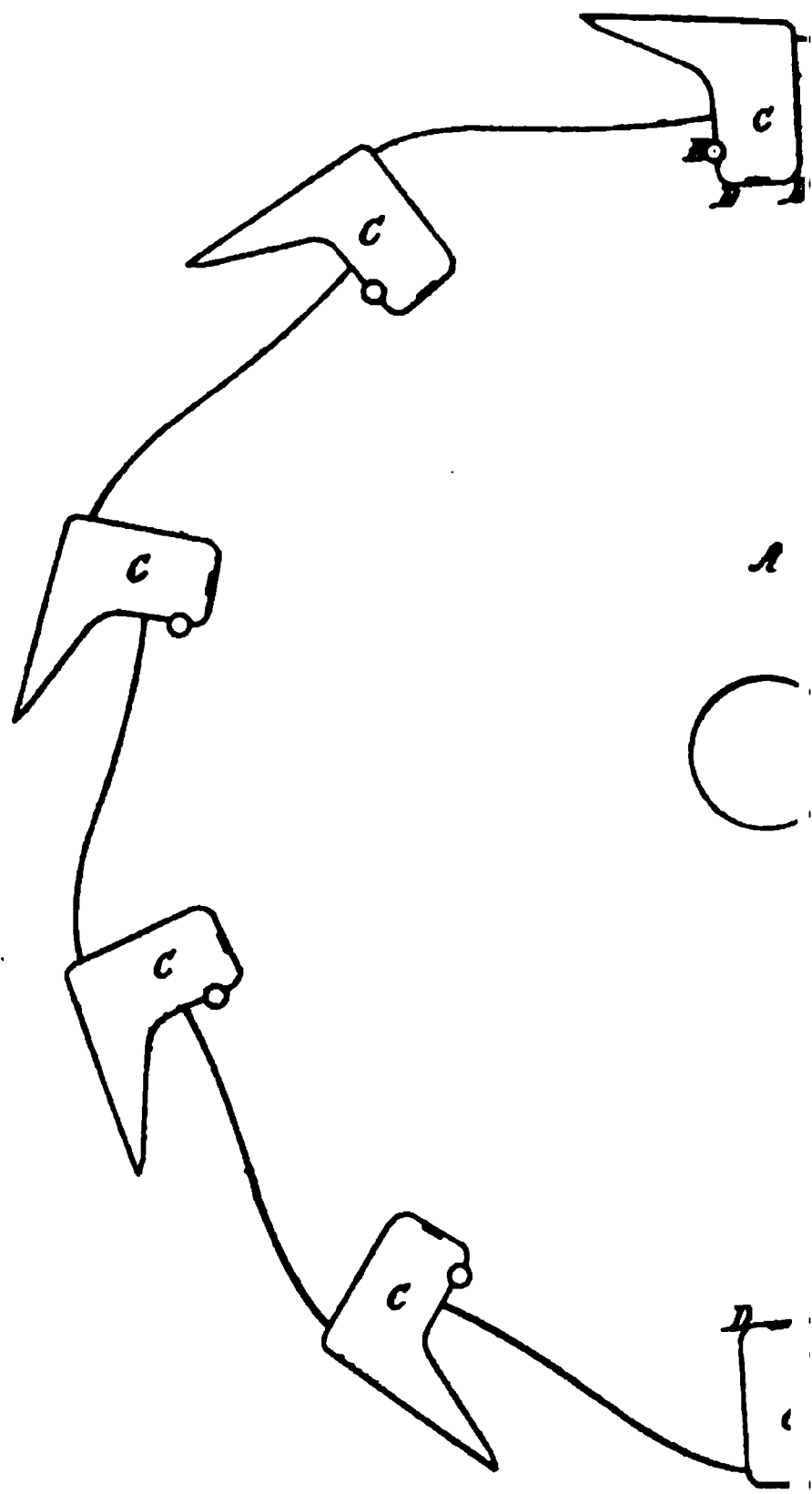
Be it known that I, Nathan W. Spaulding, of the city of San Francisco, (formerly of the city of Sacramento), in the State of California, have invented a certain new and useful Improvement on Saws and Saw-plates ; and I do hereby declare the following to be a full, clear and exact description thereof, reference being had to the accompanying drawings, and to the letters and marks thereon.

My improvement relates to that class of saws or saw-plates wherein detachable or removable teeth are fitted into recesses or sockets in the edge or periphery of the saw or saw-plate.

N. W. Snow
Saw
Re

N^o 1450.

Fig. 1



Witnesses
Samuel Cross
W. Marshall



Statement of the case.

Previous to my invention the recesses or sockets formed in the edge or periphery of the saw-plates, and into which the teeth were to be fitted, were of rectangular form, the bottom or base of the socket or recess being at right angles to the sides or the recess or socket being of angular form. The teeth to be fitted into these sockets had also rectangular or angular form—*i. e.*, the body of the teeth or that part which was to be fitted into the socket. In use the pressure of these teeth necessarily bore upon the angles of the sockets, and in consequence of the pressure and strain thereon frequently fractures were made extending from the socket into the saw-plate. These fractures always injured the saw-plate, and often entirely ruined it, so that very considerable loss would occur in using saws with detachable teeth.

Now, my invention has for its object the remedying of the difficulty that existed from the insertion of these teeth into the recesses or sockets above named, and my invention consists in providing the saw or saw-plate with teeth or other pieces set therein in circular lines instead of angular, where the power is applied, whereby the pressure is distributed in equal proportions on the saw or saw-plate, and the danger of splitting, cracking or breaking is entirely removed.

To enable others skilled in the art to make and use my invention, I will proceed to describe its construction and operation.

I construct my saw or saw-plate in any of the known forms, and fit and apply thereto teeth and other pieces necessary with circular instead of angular lines at the base or other places therein where the pressure or force applies; and in order to obviate the danger arising from the saw or plate-splitting, cracking or breaking at the place where the tooth or other piece is set in the saw or saw-plate, as generally is the case when set therein by angular lines, I set the tooth or other piece in the saw or saw-plate with circular lines. as shown at D D in the accompanying drawings,

Statement of the case.

wherein letter A is a perspective view of a circular saw-plate. Letters B are perspective views of sections of a circular saw-plate. Letters C are perspective views of teeth to be set in the saw or saw-plate. Letters D are perspective of the circular lines in the saw or saw-plate at the base of the teeth where the pressure applies, and where the plate usually splits, cracks or breaks; and letter E represents a smooth rivet or key to fasten the tooth or other piece in the saw-plate.

In the saw or plate wherein the tooth or other piece is to be set a "gain," with a beveling tongue on the inside and around the edge, and a semicircular hole for a key on the lifting side, is to be made, as represented in Fig. 4, letters D D, the line at the points D D being circular instead of angular.

The tooth, as represented in Fig. 3, letter C, is to be made with a beveling groove on the outside or edge, with a semicircular hole on the lifting side corresponding with the hole in the gain (represented in Fig. 4 at letter E), by which, with a rivet, to fasten the tooth in the saw-plate. All the corresponding parts of the tooth to be inserted in the gain are to be fitted therein with exactness and precision and fastened with a rivet, as above described.

The recesses or sockets in the saw-plate for the insertion of the teeth may be made when the saw-plate is formed—*i. e.*, in the manufacture of the plate, or they may be made at any subsequent time by using a "gummer" or any other suitable tool or implement. In some instances it may be desirable to embrace the entire surface of the base or bottom of the socket or recess in the circular lines, while in others it may only be necessary to embrace the terminal point of the sides of the socket—that point where the sides and bottom meet, and which constitutes the angle in the straight-line socket or recesses—and the circular lines may be applied to the entire substance of the socket or recess, or they may be limited to the gain only, the application of my invention to the particular saw-plate, of course, being

Statement of the case.

susceptible of being varied as the character of the plate may in the judgment of the maker or operator require. While the circular lines may be greater or less, and embrace a greater or less amount of the recess or socket, the teeth to be inserted therein may also vary in form, it being even better to insert teeth having rectangular bodies or base in the circular-lined sockets than in rectangular or angular sockets.

What I claim as new, and desire to secure by letters patent, is—

1. Forming the recesses or sockets in saws or saw-plates for detachable or removable teeth on circular lines, substantially as and for the purpose herein set forth.

2. In combination with sockets or recesses formed in saws or saw-plates, as herein recited, teeth having their base or bottom parts formed on circular lines, as described.

This specification signed this 2d day of January, 1863.

N. W. SPAULDING.

Witnesses :

G. F. ALLARDT,

W. O. ANDREWS.

JONAH NEWTON, OF NEW YORK, N. Y.

Letters Patent, No. 13,096. Dated June 19, 1855.

The schedule referred to in these Letters Patent and making part of the same.

To all whom it may concern :

Be it known that I, Jonah Newton, of the city, county and State of New York, have invented a new and improved mode of securing cutters to rotating discs or plates, for the purpose of cutting tongues and grooves, mortises, etc., and I do hereby declare that the following is a full, clear and exact description of the same, reference being had to the

Statement of the case.

annexed drawings making a part of this specification, in which—

Fig. 1, is a side view of the disc or plate with four cutters attached to it.

Fig. 2, is a longitudinal section of one of the cutters and a portion of the disc or plate (y y) Fig. 3, shows the plane of section.

Fig. 3, is a transverse section of one of the cutters and a portion of the disc or plate (x x) Fig. 1, shows plane of section.

Similar letters of reference indicate corresponding parts in the several figures.

The nature of my invention consists in attaching the cutters to the disc or plate in a peculiar manner, as will be hereafter fully shown and described, whereby the cutters may be adjusted so as to be always in proper position and act upon the wood or stuff at a proper angle.

To enable others skilled in the art to fully understand and construct my invention I will proceed to describe it.

A, represents the disc or plate to which the cutters (a), are attached. The disc or plate is hung as usual upon a rotating shaft, and may be shown in Fig. 1, of square form having a projection (b) at each angle or corner. The front edges of the projections (b) are of semi-circular form and have grooves, (c), cut in them, one in each, at the centers of the edges, as clearly shown in Figs. 2 and 3.

The cutters (a) are of semi-circular form and have each a projection or ledge (d) on their backs or convex sides which are fitted in the grooves (c). The front or concave sides of the cutters (a) have each a groove (e) cut in them in which a segment nut or head (f) fits, the back or convex sides of the nuts having each a ledge or projection (g), which fit in the grooves (e). See Figs. 2 and 3.

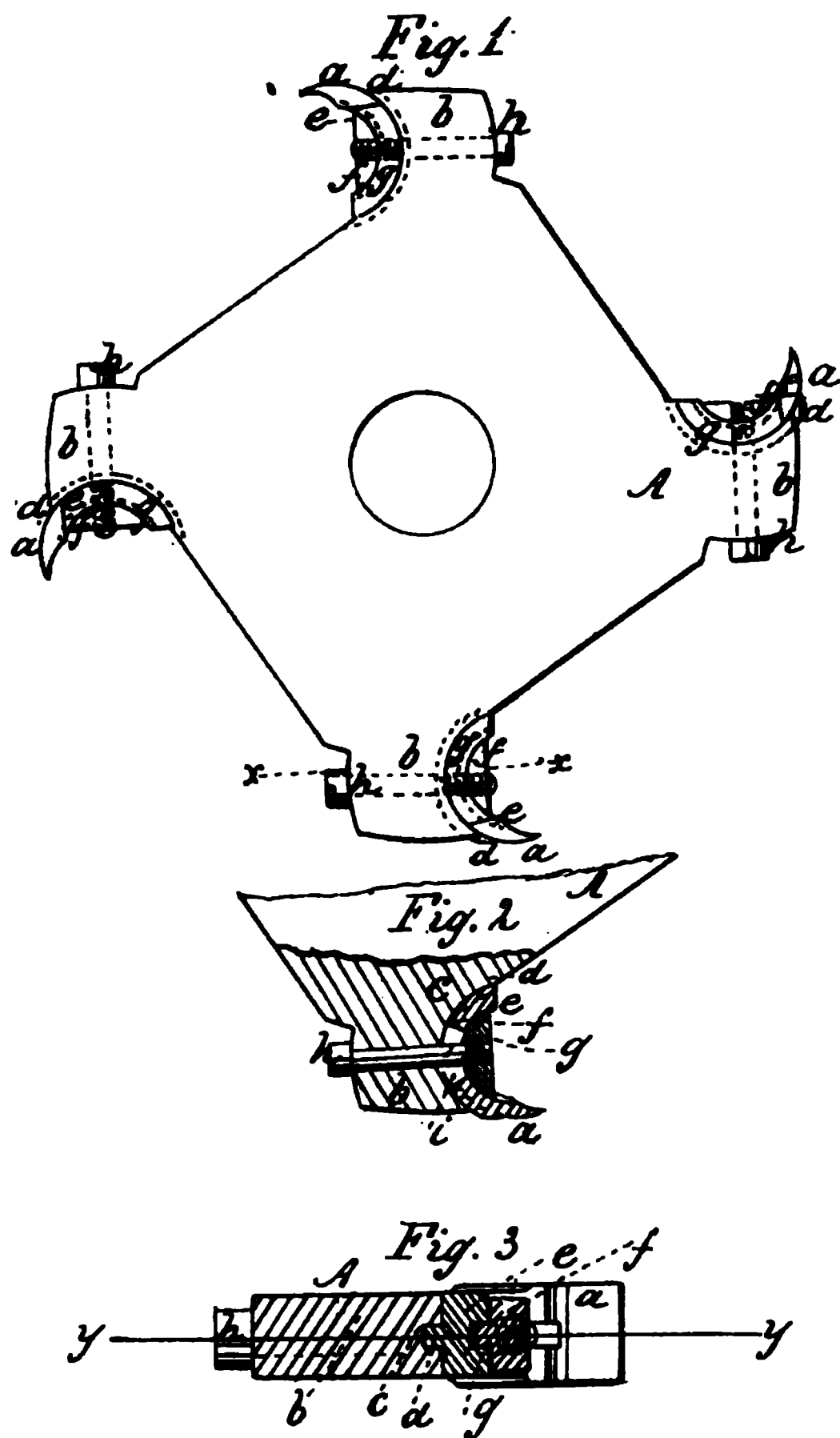
Through each of the projections (b), a screw (h) passes the screws (h), also passing through the cutters (a) and into the nuts or heads (f). A slot (i) is made, see Fig. 2, through

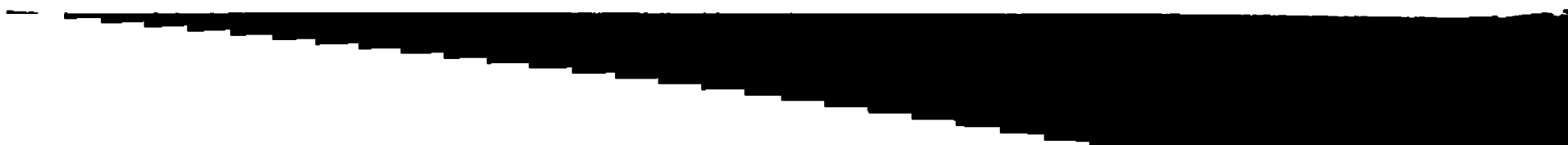
J. Newton

Securing Cutters to Rotary Discs

Nº 13096

Patented June 19, 1855





each cutter for the screws to pass a certain degree of play.

The cutters are firmly secured the screws (*h*), as will readily be not move laterally in consequence ledges (*d*) on their backs fitting front edges of the projections. N by being sharpened, they may be ing the screws (*h*) so that the cut in the proper position and act up at the proper angle, the slots (*i*) moved outward.

The above invention is extreme are firmly secured to the disc or difficulty at present with the usual that the cutters work loose not b firmly secured to the plate or disc

Having thus described my inven and desire to secure by Letters Pa

Securing the cutters (*a*) to the c shown and described, viz: having ular form with ledges or projectio convex sides, the ledges or pro grooves (*c*) in the semi-circular ed of the plate A. The front or conc having grooves (*e*) in them to recei heads (*f*). The projections (*b*) cut (*f*) having screws (*h*) passing throu of allowing the cutters to be adj securing firmly the cutters to the c

Witnesses:

I. W. COOMBS,
WILLIAM TUSCH.

Messrs. George Gifford and W. in error:

The Newton patent was earlier in

Argument of counsel.

ing's patent or the time of his alleged invention, and was proper evidence to prove want of novelty.

It was proper evidence to go the jury and to be made the subject of testimony as to its contents and their relation to the plaintiff's alleged invention.

Determining the similarity or dissimilarity in the contents of two patents, belongs to the province of evidence and not to that of construction, and is for the jury, and not for the court.

Bishoff v. Wethered, 9 Wall. 812 [p. 213, *ante*].

The name applied to a thing described in a patent does not determine its character nor affect its relation to some other patented thing.

Bridge Proprs. v. Hoboken Co., 1 Wall. 116.

It is immaterial what name is given to the machine or thing described in the Newton patent. The court below seems to have excluded this patent, for the reason of the thing patented not being called a saw, and because it is stated in the patent as being used for cutting tongues, grooves, mortises, etc.

The Newton patent calls the invention a new and useful method of securing cutters to rotary discs or plates, and states its object to be for cutting tongues and grooves, mortises, etc.

Cutting grooves or mortises or tongues by the Newton rotary disc, is merely sawing them. The teeth of all rotary saws have a cutting edge, and these teeth, in sawing, cut. The cutting constitutes the sawing.

A new use of an old machine is not patentable.

Curt. Pat. secs. 50-56, inclusive, and cases there cited; Law. Dig. 254, secs. 6-8; *Ames v. Howard*, 1 Sumn. 487; *Bean v. Smallwood*, 2 Story, 411; *Hotchkiss v. Greenwood*, 4 McLean 461.

Messrs. M. A. Wheaton and J. J. Coombs, for defendant in error:

The 6th exception is based solely upon the ruling of the

Argument of counsel.

court in refusing to admit in evidence a patent granted to Jonah Newton in 1855, for an improvement, not in saws, but in a grooving and mortising machine.

In this machine there is neither a saw nor a saw-tooth nor any socket for a saw-tooth. There is in it a rotary disc or hub with four projections, one-half an inch thick, to which cutters are bolted.

The disc is nearly half an inch thick and about four inches in diameter, the thickness being over one-tenth of the diameter. The strength of the metal precludes any idea of its ever breaking. Besides, as is stated by Emerson, the defendant's witness "The tendency and effect of the insertion of the Spalding tooth are to strain the saw-plate, while there is no such tendency in the Newton tooth."

It was this tendency "to strain the saw-plate" and nothing else which Spalding's invention overcame. As there was no such tendency in the Newton machine, there could have been no application of Spalding's invention, and the patent was properly ruled out.

Doubtless there are cases where the description of the inventions patented, upon which the trial is being had, and that which is offered as an anticipation to show a prior use, may be so nearly alike that the court would submit the question of identity to the jury when the court is doubtful whether the two are identical or not. But when the differences are so great that there is no room to believe there is any point of identity between them, the court should rule out the machine or description offered to show priority, as irrelevant.

Models were offered with the Newton patent. The court, therefore, did not need the opinion of experts to learn whether the Newton mortising machine tended to show want of novelty in Spalding's patent or not. As to what the evidence tends to prove, it is a question of law and is for the court to decide.

The Newton patent was a written instrument and was for the court to construe.

Opinion of the court.

The court had as good a right to be assisted in its construction of the patent by the model as by the opinion of experts.

Parker v. Hulme, 1 Fish. 44, Ransom v. Mayor of N. Y.; 1 Fish. 252; Day v. Stellman, 1 Fish. 487; Many v. Sizer, 1 Fish. 31; Adams v. Jones, 1 Fish. 531; Morris v. Barrett, 1 Fish. 463; Swift v. Whisen, 3 Fish. 359.

Mr. Justice MILLER delivered the opinion of the court.

This is an action at law to recover damages for the infringement of a patent for the use of movable teeth in saws and saw-plates.

A verdict and judgment were rendered for the plaintiff, Spalding, and the other party assigns in this court several errors in the rejection of evidence offered by him, and in the charge of the court to the jury.

(a) We are of opinion that the court erred in refusing to admit a patent to Newton, confessedly prior in date and invention to that of the plaintiff, which the defendant offered as covering the subject matter of the plaintiff's patent.

(b) Other bills of exception were taken to the rejection of the testimony of experts to prove the identity of the invention described in the Newton patent, with that of plaintiff, but the cardinal point in the case is the refusal of the court to permit the Newton patent to be read to the jury (c).

Whatever may be our personal opinions of the fitness of the jury as a tribunal to determine the diversity or identity in principle of two mechanical instruments, it cannot be questioned that when the plaintiff, in the exercise of the option which the law gives him, brings his suit in the law in preference to the equity side of the court, that question must be submitted to the jury, if there is so much resemblance as raises the question at all. And though the prin-

13 Wall. 455.

(a) Wallace begins Opinion here.

(b-c) Wallace omits from b-c.

Opinion of the court.

ciples by which the question must be decided may be very largely propositions of law, it still remains the essential nature of the jury trial that while the court may, on this mixed question of law and fact, lay down to the jury the law which should govern them, so as to guide them to truth and guard them against error, and may, if they disregard instructions, set aside their verdict, the ultimate response to the question must come from the jury.

(*d*) The patent of plaintiff claims the forming of recesses or sockets in saws or compound saw-plates for detachable or removable teeth on circular lines, and, in combination with these recesses, teeth having their base or bottom parts formed on circular lines as described.

Newton's patent had cutters of the same general shape and form including circular base, as the compound saw-teeth of the other patent, attachable to a circular disc, and removable as in the other, but attached by screws or nuts; and the claim or purpose of the Newton patent is for cutting tongues, grooves, mortises, etc. (*e*).

The court in rejecting the patent seems to have been mainly governed by the use which was claimed for it, and also that no mention is made of its adaptability as a saw. But if what it actually did is in its nature the same as sawing, and its structure and action suggested to the mind of an ordinarily skillful mechanic this double use to which it could be adapted without material change, then such adaptation to the new use is *not* a new invention, and is not patentable.

The defendant offered to prove that such was the relation of the principle of the Newton patent and plaintiff's patent by experts, and we are clear that the resemblance was close enough to require the submission of the question of identity to the jury, and the admission of the testimony of experts on that subject.

This subject was fully considered in the case of Bischoff

13 WALL 455-456.

(*d-e*) Wallace omits from *d-e*.

Notes and Citations.

v. Wethered, 9 Wall. 815 [p. 213, *ante*], decided since the present writ of error was issued.

This court has no more right than the court below to decide that the one patent covered the invention of the other, or that it did not; and it is obvious that extended argument here, to prove such general resemblance as would require the submission of both patents to the jury, might prejudice plaintiff's case on the new trial which must be granted. We, therefore, forbear to discuss the matter further; for the same reason we refrain from comment on the instruction. It is to be understood that in declining to pass upon the other alleged errors of the record, this court neither affirms or overrules the action of the court on those points, and the case is reversed for this fundamental error, which includes several others resting on that.

The judgment of the Circuit Court is reversed, and a new trial ordered.

13 Wall. 456.

Notes:

2. Double use :

Phillips v. Page, 24 How. 164 [7 Am. & Eng. 97].

Brown v. Piper, 91 U. S. 37.

Roberts v. Ryer, 91 U. S. 150.

Vinton v. Hamilton, 104 U. S. 485.

Slawson v. Railroad Co., 107 U. S. 649.

Stephenson v. Brooklyn R. R. Co., 114 U. S. 149.

Analogous use:

Collar Co. v. Van Dusen, 23 Wall. 530.

Pennsylvania R. R. Co. v. Truck Co., 110 U. S. 490.

Morris v. McMillin, 112 U. S. 244.

Blake v. San Francisco, 113 U. S. 679.

Stephenson v. Brooklyn R. R. Co., 114 U. S. 149

Notes and Citations.

Western Electric, &c., Co. v. Ansonia Brass Co., 114 U. S. 447.

Eachus v. Broomall, 115 U. S. 429.

Miller v. Foree, 116 U. S. 22.

Dreyfus v. Searle, 124 U. S. 60.

3. On the question of novelty, identity with the prior invention is
a question for jury :

Battin v. Taggert, 17 How. 74.

Bischoff v. Wethered, 9 Wall. 812. (p. 213, *ante*), note 2.

Admissibility of expert evidence :

Railroad Co. v. Stimpson, 14 Pet. 448 [4 Am. & Eng. 324].

Corning v. Burden, 15 How. 252 [6 Am. & Eng. 69].

Winans v. Railroad, 21 How. 88 [6 Am. & Eng. 440].

Miller v. Foree, 116 U. S. 22.

Patent in suit :

No. 83,270. Spaulding, N. W. September 10, 1861. Re-
issue No. 1,456. April 21, 1863. Setting Teeth in
Saws.

OTHER SUITS ON SAME PATENT :

Spaulding v. Duff, 1871. 1 Sawy. 720 ; 4 Fish. 641.

Spaulding v. Tucker, 1871. 4 Fish. 633 ; Deady, 649.

Notes and Citations.

Cited :

IN SUPREME COURT IN :

Stow v. City of Chicago, 1882. 104 U. S. 547 ; Bk 26, L. ed. 816.
Eachus v. Broomall, 1885. 115 U. S. 429 ; Bk 29, L. ed. 419.

IN CIRCUIT COURTS IN:

Yale Lock Mnfg. Co. v. Norwich Nat. Bank, March, 1881. 19 Blatch.
123 ; 6 Fed. Rep. 377.
Leonard v. Lovell, December, 1886. 29 Fed. Rep. 310.
The Rapid Service Store Railway Co. v. Taylor, August, 1887. 42
O. G. 721.

IN TEXT-BOOKS:

Merwin on Pat. Inv't, pp. 283, 324.

[illegible]

Syllabus.

JOHN H. BUTLER, PLAINTIFF IN ERROR, v. FRANCIS WATKINS AND THE PATENT NUT AND BOLT COMPANY.*

18 Wall. 456-465. Dec. Term, 1871.

[Bk. 20, L. ed. 629; 2 Whit. 368.]

Argued March 4, 1872. Decided March 25, 1872..

Waiver. Instructions. Corporation. Agent. Fraud. Admissibility of evidence.

1. Where plaintiff asked for no instructions in the court below, he cannot now be heard to complain that full instructions were not given; notwithstanding that what the court said may have been inadequate to a full presentation of the case. (p. 501.)
2. Where patentee sued a British corporation and its agent for damages, for having deceptively and fraudulently held out to him a profession of intention to conclude an agreement respecting patentee's cotton-tie, it being done with the purpose of keeping his cotton-tie out of the market, so as to promote the sale of defendants' cotton-tie, a charge that if "the corporation never gave any authority to the defendant, their agent, to assent to the proposal, or draft the agreement in their behalf and in their name, and never sanctioned the same as a corporate act, the suit could not be maintained against them" is error, and *held* that no such question as a suit on the contract if the instruction was so meant, was before the jury. (p. 501.)
3. In actions of fraud large latitude is always given to the admission of evidence. If a motive exists prompting to a particular line of conduct, and it be shown that in pursuing that line a defendant has deceived and defrauded one person, it may justly be inferred that similar conduct towards another, at about the same time, and in relation to a like subject was actuated by the same spirit. *Held* that letters of defendant to a third party offered as evidence to show such an animus and object in view, were erroneously rejected. (p. 503.)

* See Explanation of Notes, page III.

Statement of the case.

[Citations in opinion of the court:]

Barley v. Walford, 9 Ad. & El. N. S. 197. p. 508.

Castle v. Bullard, 23 How. 172. p. 504.

Lincoln v. Claflin, 7 Wall. 182. p. 504.

In error to the Circuit Court of the United States for the District of Louisiana.

This action was brought by Butler, the plaintiff in error, in the State Court of Louisiana, in the Fourth District Court for the Parish of Orleans.

The defendants, as alien subjects of the Queen of Great Britain, removed the case to the United States Circuit Court for the District of Louisiana. The case was tried in February, 1870, upon pleadings filed in the Circuit Court, and resulted in a verdict for the defendant. The plaintiff filed several bills of exception, and February 19, took an order to show cause why a new trial should not be had, and filed written reasons therefor April 12, 1870. A motion for a new trial was heard April 14, and denied, and judgment signed for the defendants April 16, 1870. To review that judgment the plaintiff brought this writ of error.

It appears that the Patent Nut and Bolt Company is a corporation formed under the Limited Liability Act of Great Britain, for the manufacture of iron, at Birmingham, England. The defendant, Watkins, is what is termed a managing director. In January, 1868, he was at New Orleans, Louisiana, and had some intercourse with the plaintiff, who had one or more patents for fastening cotton bales with iron ties.

The petition of the plaintiff charged that the defendant deliberately attempted to induce plaintiff to believe that they would make a contract with him, and to induce him thereby to neglect other opportunities of introducing his tie into market and to keep him in a condition of expectancy and hope until the cotton season had passed, and that, all the time, the defendant's acts and promises had been in bad faith, without any intention ever to fulfil the

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same, and solely to defraud the plaintiff. That the plaintiff had relied on them, and had been thus defrauded.

The bill of exceptions to the instructions of the court below, states that there was evidence before the jury tending to show that there was an understanding had between the plaintiff and Watkins, acting for himself and the company, for the manufacture and sale of the plaintiff's tie upon the terms and conditions set forth in a document attached and marked "A;" that when this document was handed to Watkins, he wrote the letter marked "B;" that the plaintiff expressed his willingness to sign the same, but that Watkins, told him that the document "A" would have to be sent to England and undergo certain formalities to make it complete in form only, and that the paper was taken to England and was never completed in form, and that the acts of the defendant, from the beginning to the end, were fraudulent and deceptive.

"A" is a paper, not signed nor dated, in the form of a proposed contract whereby the plaintiff, Butler, of the first part, agrees to give the defendants the right of manufacturing and selling hoops and buckles or iron cotton ties, under his patent. The defendants were to manufacture the same at as low price as possible, in sufficient quantity to supply the demand for the same, and to make vigorous exertions to introduce the ties in all countries where they could be sold. There were also provisions for accounts, statements and divisions of profits.

"B" is the answer of Watkins to this document. He says that he has read the draft agreement and that it seems to be about the thing; that he will have the same put in shape on his arrival home and let plaintiff have two copies, one to retain, the other to return to him.

The case further appears in the opinion.

Messrs. Peckham, Lacey and Butler, for plaintiff in error.

The petition charges that the defendants deliberately at-

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tempted to induce the plaintiff to believe that they would make a contract with him, and to induce him thereby to neglect other opportunities of introducing his tie to market, and to keep him in a condition of expectancy and hope till the cotton season had passed, and that all the time the defendant's acts and promises had been in bad faith, without any intention ever to fulfil the same, and solely to defraud the plaintiff. That the plaintiff had relied on them, and had been thus defrauded.

If the defendants commenced this negotiation and carried it on in good faith, no action lies; but if it was commenced and carried on not in good faith, but as part of a systematic plan to keep out of the market the plaintiffs, and also the Wailey tie, an action does lie. It appeared that certain letters from defendants to plaintiff had been read in evidence. It appeared, also, that one Wailey had a cotton tie, respecting which he had negotiated with defendants, and with a similar result to the negotiations of plaintiff. The plaintiff offered to read the letters from the defendants to Wailey, with a view to show the animus of the defendants in their negotiations with plaintiff. The court excluded these letters, and seems to have considered the mere fact of the letters being written to Wailey sufficient to exclude them as being *res inter alios*. But it will be remembered, that the gist of this action is the animus with which certain things were done by or on behalf of defendants. In criminal law evidence of other takings under similar circumstances at about the same time is admissible, not as proving the other crimes, but as tending to prove the *intent* or the animus with which the act under investigation was done. *People v. Hopson*, 1 Denio, 574; 2 Russell on Crimes, 777; Wharton Am. Crim. Law, 300, 301, note 7; 1 Greenleaf on Ev., sec. 53.

The charge of the court "That to bind plaintiff by the terms of the proposed agreement his signature must have been put to the same, and so long as it was unsigned it was on his part only an overture or proposition from which he

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might at any time withdraw before signature," was error. Whether the agreement was binding on the plaintiff or not was utterly immaterial. The action was not on the agreement, but for the fraud in inducing plaintiff to enter into negotiations which defendants fraudulently intended as a mere sham. The charge of the court had a tendency to mislead the jury, and to distract their attention from the real issue in the case to one of no relevancy to the case.

Messrs. John A. Campbell, P. Phillips and D. G. Campbell, for defendants in error.

The petition in this case is in the nature of an action for deceit; and admitting all that is pretended, as to the hopes held out and the promises made, we deny that they constitute any legal ground for the recovery of damages.

It was the duty of the plaintiff in the exercise of ordinary prudence to demand at any time an immediate and positive answer from the defendants as to their acceptance. There is nothing in the letter produced to throw him off his guard, but on the contrary, everything to throw doubt on the acceptance. The correspondence, the court stated to the jury, meant this. The only letter of Watkins produced implies that the company was to decide what should be done, and that very moderate expectations were to be indulged. The whole evidence we are authorized to infer, showed there was an overture by the plaintiff. That Watkins favored the adoption of some arrangement, and agreed to submit it to his company, that he informed the plaintiff that the agreement, if adopted, must be *sealed* by his company. That his company was slow in adopting the agreement and deferred, with circumspection and care, under the advice of the solicitors of the company, an agreement which was not acceptable to the plaintiff.

Wailey's testimony, and letters written to him, were offered to prove the deceitful conduct of defendants toward Wailey—to prove that the conduct to the plaintiff was also fraudulent—this was objected to as *res inter alios acta*,

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and the objection was sustained. We admit that there are cases in which a plaintiff may introduce contemporaneous acts of a defendant, to show the motive of the acts complained of by him. The facts of contemporaneous, fraudulent invoices passed through a custom house, were allowed to prove that there was a fraudulent motive in respect to a particular invoice. But the testimony offered here would have put a new case before the jury. Evidence must have been taken to rebut the fact that there had been a contract with Wailey. .

The parties must have understood the construction of the patent laws and the laws of contracts, and that no contract or obligation existed. The power of self-protection was perfectly ample. No court would have sustained a bill for a specific performance against either Butler or Wailey. The answer that there was no contract would have been conclusive. 6 H. of Lords R. 238, 268, 305; 21 L. & Eq. Rep. 1.

Where there was no legal duty there cannot be a recovery by stigmatizing the conduct as *malicious*, *deceitful* or *fraudulent*. The parties must take care of their own interest. *Stevenson v. Newman*, 18 C. R. Rep. 285; *Bailey v. Merrill*, 3 Buls. 94.

Mr. Justice STRONG delivered the opinion of the court.

We are unable to discover error in the instructions given to the jury by the court below, or in the answers made to the prayers of the defendants, except in a single particular. What the court said may have been inadequate to a full presentation of the case, but the plaintiff asked for no instructions, and he cannot, therefore, now be heard to complain that full instructions were not given. The bills of exceptions bring upon the record only that which was said to the jury, and to that alone can error be assigned.

It is quite true that the suit was not brought upon any contract. The theory of the plaintiff was that no agree-

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ment had ever been made, and that the defendants had never intended making one, though all the while during the negotiations deceptively and fraudulently holding out to the plaintiff a profession of intention to conclude an agreement, and that this was done with the purpose of keeping the plaintiff's "cotton-tie" out of the market. The answers to the defendants' prayers, so far as they tend to show that no contract had been concluded were, therefore, favorable rather than hurtful to the plaintiff's case, and they furnish no just ground for complaint.

The court, however, erred in charging the jury that if they believed "the corporation never gave any authority to the defendant, Watkins, to assent to the proposal, or draft agreement, in their behalf, and in their name, and never sanctioned the same as a corporate act, the suit could not be maintained against them." If by this it was meant that no suit upon the contract could be maintained, the instruction was correct, but this could not have been so understood by the jury. No such question was before them. It does not follow, because the corporation never authorized or sanctioned a contract, that they may not be responsible for such a fraud as was alleged in the petition. We have not all the evidence before us, but it does appear that some evidence was given tending to show that the acts and conduct of the defendants (Watkins and the corporation) were deceitful and fraudulent, designed to mislead, and done for the purpose of keeping the plaintiff's cotton-tie out of the market, in order that they might secure heavy sales of the Beard tie, in which they were largely interested. If the evidence did establish or tended to establish such deceit and fraud, for such a purpose, and if the plaintiff was injured thereby, as his petition alleged, it was erroneous to charge the jury that the suit could not be maintained. Competition in efforts to secure the market is doubtless lawful. A manufacturer may by superior energy, or enterprise, supply all the buyers of a particular

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article, and thus leave no market for similar articles manufactured by others. But he may not fraudulently or by deceitful representations induce another to withhold from sale his products without being answerable for the injury occasioned by the fraud. Whether negotiations for a purchase never concluded were in fact fraudulent; whether they were commenced and continued solely with the purpose of dishonestly inducing the plaintiff to forego offering his goods until the market had been supplied, and whether such was the consequence of the defendants' fraudulent conduct, were questions of fact which should have been submitted to the jury on the evidence. If answered affirmatively, the action was sustainable. In order to maintain an action for fraud it is sufficient to show that the defendant was guilty of deceit, with a design to deprive the plaintiff of some profit or advantage, and to acquire it for himself, whenever loss or damage has resulted from the deceit. This was well illustrated in *Barley v. Walford*, 9 Ad. & El., N. S. 197. There it appeared that a plaintiff, who was a dealer in silk goods, had been hindered in his trade and induced to refrain from making goods with a certain ornamental design, by a false representation made by the defendant, and known by him to be false, that a pattern of the goods had been registered by another, and it was ruled that an action would lie to recover damages for the injury, especially when the deceit was with a view to secure some unfair advantage to the defendant.

We think also the court erred in refusing to receive in evidence the defendants' letters to Wailey in connection with Wailey's testimony. It was an important inquiry in the case, what was the purpose or *animus* of the defendants in their negotiations with the plaintiff? Was it to mislead him by holding out false hopes of consummating an arrangement by which his cotton tie could be introduced into the market, and was this in order to secure the defendants themselves against competition? Deceit in effect-

Notes and Citations.

ing such a purpose lay at the basis of the action. But how can such a purpose be shown when it has not been avowed? Actual fraud is always attended by an intent to defraud, and the intent may be shown by any evidence that has a tendency to persuade the mind of its existence. Hence, in actions for fraud, large latitude is always given to the admission of evidence. If a motive exist prompting to a particular line of conduct, and it be shown that in pursuing that line a defendant has deceived and defrauded one person, it may justly be inferred that similar conduct towards another, at about the same time and in relation to a like subject, was actuated by the same spirit. If, therefore, it be true that in the spring or early summer of 1868 the defendant had similar negotiations with Wailey respecting his cotton-tie, and conducted towards him deceitfully in order to keep his tie out of the market that year, the fact tends to show that in their conduct towards the plaintiff, there was the same *animus*, and that they had the same object in view. That the evidence offered was admissible for that purpose is abundantly proved by the authorities. *Castle v. Bullard*, 23 How. 172; *Lincoln v. Claffin*, 7 Wall. 132.

The judgment is reversed and a new trial is ordered.

13 Wall. 464-465.

Patent in Suit:

No. 26,087. Butler, John T. November 15, 1869. Cotton-Tie.

Cited:

IN SUPREME COURT IN :

New York Mut. L. Ins. Co. v. Armstrong, 1886. 117 U. S. 91; Bk. 29, L. ed. 997.

Notes and Citations.

IN TEXT BOOKS:

2 Abb. Pat. Law, 1886, p. 293.

Syllabus.

**ALBERT L. MOWRY, COMPLAINANT, APPELLANT,
v. ASA WHITNEY.*****14 Wall., 434-441. Dec. Term, 1871.**

[Bk. 20, L. ed. 858; 2 Whit. 382; 1 O. G. 499.]

Argued March 27, 1872. Decided April 22, 1872.

*Vacating patent. Government right to annul patent. Scire facias.
Act 1836, sec. 16.*

1. The question raised but not considered whether the court has jurisdiction to entertain proceedings to declare a patent null, *ab initio*, which though no longer in force as to present or future infringements, is used to sustain suits for infringements during its validity. (p. 509.)
2. No one but the Government, either in its own name or the name of its appropriate officer, or by some form of proceeding which gives official assurance of the sanction of the proper authority, can institute judicial proceedings for the purpose of vacating or rescinding the patent which the Government has issued to an individual, except in the cases provided for in sec. 16 of the Act of July 4, 1836. Demurrer to bill to vacate a patent brought by complainant in his own right sustained. (p. 510.)
3. Although in this country the writ of *scire facias* is not in use as a chancery proceeding, the nature of the chancery jurisdiction and its mode of proceeding have established it as the appropriate tribunal for the annulling of a grant or patent from the Government. (p. 510.)
4. Act of 1836, sec. 16, *annulling patents* considered. (p. 511.)

[Citations in opinion of the court:]

4 Coke's Inst., 88. p. 510.

Dyer, 197, 198, 276, 279. p. 510.

The United States v. Stone, 2 Wall. 525. p. 510.

Attorney General v. Vernon, 1 Vern. 277. p. 510.

Jackson v. Lawton, 10 Johns. 24. p. 510.

The King v. Sir Oliver Butler, 3 Lev. 220. p. 511.

This was a suit in equity, brought in the United States

*See Explanation of Notes, page III.

Argument of counsel.

Circuit Court for the Eastern District of Pennsylvania, by Albert L. Mowry, to set aside and annul the patent for an improvement in annealing and cooling cast iron car wheels, granted to Asa Whitney, April 25, 1848, and subsequently extended for the term of seven years. Defendant demurred to the bill and the demurrer was sustained. Appellant alleged this ruling of the court as error. The points are stated in the opinion.

Messrs. Charles B. Collier and A. G. Thurman, for appellant :

As the bill charged and the demurrer confessed that the extension was procured by fraud, the extended patent must be regarded as void *ab initio* and as conferring no monopoly upon the patentee, as against the public or the complainant.

Notwithstanding the expiration by limitation of Whitney's patent, prior to the filing of the bill, the extended patent, until declared void for fraud, was and is alive and in effect for all purposes of suits for infringements of it that occurred during its existence.

Nevins v. Johnson, 3 Blatchf. 80 ; Pat. Laws, Act of 1870, sec. 55.

By reason of the fact that Whitney's patent had expired prior to the filing of the complainant's bill, the Government of the United States was neither a necessary nor a proper party to the bill ; and by reason of such expiration, the bill could not have been maintained in the name of the Government, it having no interest in the subject matter of the controversy.

Bourne v. Goodyear, 9 Wall. 811 [p. 209 *ante*].

The complainant, Mowry, as appears on the face of his bill, has a direct and personal interest in the subject matter of the suit. He is sued by Whitney for an alleged infringement of said patent, in the United States Circuit Court for the Southern District of Ohio. He cannot avail himself of the fraud of the patentee as matter of defense

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to the suit in that court, and in that cause. He is without remedy save in the court and according to the manner in which he has sought it by this proceeding.

Rubber Co. v. Goodyear, 9 Wall. 788 [p. 150 *ante*]; Wood v. Williams, 1 Gilp. 517; 1 Robb. Pat. Cas. 717.

The extension of the patent having been, confessedly, fraudulently procured, and the Government not being able to maintain a suit in relation to the patent, by reason of its expiration, and having no further interest in it, the suit could only be and was properly brought by one who had a continuing interest in the patent, and whose rights were, notwithstanding its expiration, affected by it.

The primary object of the suit is, that the complainant may be relieved from a prosecution which is contrary to equity and good conscience; and the court is asked to find and declare that the patent, having been procured fraudulently, was, *ipso facto*, void, as antecedent to granting the relief prayed for.

Messrs. Henry Baldwin, Jr., B. R. Curtis and E. W. Stoughton, for appellee:

There is no provision of law for any such proceeding as this to repeal a patent.

Rubber Co. v. Goodyear, 9 Wall. 788 [p. 150 *ante*].

Any proceeding for that purpose must be at the instance of the Government. Story, Eq. Pl., sec. 8.

Instead of this bill being filed by the authority or with the consent of the Government, it is, on its face, filed by an adjudged infringer, against a patentee whose rights he has invaded, and whose statute remedy he now seeks to enjoin.

The bill shows that the extended term of respondent's patent expired April 24, 1869, while this proceeding was not commenced until April 7, 1870, nearly twelve months months thereafter.

There is, consequently, no equity to support this appli-

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cation to set the extension aside, nor does anything remain which can be subject of a suit.

Bourne v. Goodyear, 9 Wall. 811 [p. 209 *ante*] ; *Minnesota Co. v. National Co.*, 3 Wall. 332.

Mr. Justice MILLER delivered the opinion of the court.

This is a bill in chancery, brought to set aside and annul a patent for an invention which was renewed in the office of Commissioner of Patents, on the ground that, in making the extension, the Commissioner was deceived and imposed on by the fraud and false swearing of the patentee.

The suit was brought in the Circuit Court for the Eastern District of Pennsylvania, in which the defendant resided, by Albert L. Mowry.

The patent was for an improvement in the process of annealing car-wheels, and the interest of the plaintiff in the matter is: that, before the time of the first issue of defendants' patent had expired, plaintiff had been engaged in the same business, and that he is now sued by the patentee for infringement of his extended patent, in an action still pending; and that, in the progress of the investigations necessary to his defense of that suit, he discovered the fraud by which the extension was obtained.

(a) The bill was demurred to, and the demurrer sustained, on two grounds:

First. That the extended patent had expired, by its own limitation, before the bill was filed; and,

Second. That the complainant could not, in his own right, sustain such a suit.

As regards the first of these propositions we do not deem it necessary to make any decision. When a case arises in which the United States, or the Attorney-General shall initiate a suit to have a patent declared null, *ab initio*, which, though no longer in force as to present or future infringements, is used to sustain suits for infringements during its

14 Wall. 439.

(a) Wallace begins Opinion here.

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vitality, the question will be considered ; for we are of opinion that no one but the Government, either in its own name or the name of its appropriate officer, or by some form of proceeding which gives official assurance of the sanction of the proper authority, can institute judicial proceedings for the purpose of vacating or rescinding the patent which the Government has issued to an individual, except in the cases provided for in section 16th of the Act of July 4, 1836.

The ancient mode of doing this in the English courts was by *scire facias*, and three classes of cases are laid down in which this may be done.

1. When the King by his letters patent has by different patents granted the same thing to several persons, the first patentee shall have a *scire facias* to repeal the second.

2. When the King has granted a thing by false suggestion, he may by *scire facias* repeal his own grant.

3. When he has granted that which by law he cannot grant, he *jure regis*, and for the advancement of justice and right, may have a *scire facias* to repeal his own letters patent.
4 Coke's Inst. 88 ; Dyer, 197, 198, 276, 279.

The *scire facias* to repeal a patent was brought in chancery where the patent was of record. And though in this country the writ of *scire facias* is not in use as a chancery proceeding, the nature of the chancery jurisdiction and its mode of proceeding have established it as the appropriate tribunal for the annulling of a grant or patent from the Government. This is settled so far as this court is concerned by the case of *The U. S. v. Stone*, 2 Wall. 525, in which it is said that the bill in chancery is found a more convenient remedy. A bill of this character was also sustained in the English chancery in the case of the Attorney General v. Vernon 1 Vern. 277, on the ground of the equitable jurisdiction in matters of fraud. And in the case of *Jackson v. Lawton*, 10 Johns. 24, Chancellor Kent says that, in addition to the writ of *scire facias* which has ceased

Opinion of the court.

to be applicable with us, there is another remedy by bill in the equity side of the court in chancery.

It will be observed that in the case of a conflict under two patents granting the same right, the *scire facias* may, according to the authorities cited, be brought in the name of one of the pateentees, but in the other cases, when the patent was obtained by a fraud upon the King, by false suggestion, or where it was issued without authority, and for the good of the public and right and justice it should be repealed, the writ is to issue in the King's name or his Attorney General's. It is also said that when a patent is granted to the prejudice of the subject, the King, of right, is to permit him upon his petition to use his name for the repeal of it, in *scire facias* at the King's suit. The King v. Sir Oliver Butler, 3 Lev. 220.

The 16th section of the Patent Act of 1836, seems to have in view the same distinction made by the common law in regard to annulling patents, for while it authorizes individuals claiming under conflicting patents, or one whose claim to a patent has been rejected because his invention was covered by a patent already issued, to try the conflicting claim in chancery, and authorizes the court to annul or set aside a patent so far as may be found necessary to protect the right, the suit by individuals is limited to that class of cases. And it is provided that the decree shall be of no validity except between the parties to the suit. The general public is left to the protection of the Government and its officers.

It seems reasonable that the remedy by bill in chancery, which is substituted for the *scire facias*, should have the like limitation in its use. The reasons for requiring official authority for such a proceeding are obvious. 1. The fraud, if one exists, has been practiced on the Government, and as the party injured, it is the appropriate party to assert the remedy or seek relief. 2. A suit by an individual could only be conclusive in result as between the patentee and

Notes and Citations.

the party suing, and it would remain a valid instrument as to all others. 3. The patentee would or might be subjected to innumerable vexatious suits to set aside his patent, since a decree in his favor in one suit would be no bar to a suit by another party. If, on the other hand, an individual finds himself injured, either specially or as a part of the general public, it is no hardship to require him to satisfy the Attorney General that the case is one in which the Government ought to interfere either directly by instituting the suit, or indirectly by authorizing the use of its name, by which the Attorney General would retain such control of the matter as would enable him to prevent oppression and abuse in the exercise of the right to prosecute such a suit.

It would seriously impair the value of the title which the Government grants after regular proceedings before officers appointed for the purpose, if the validity of the instrument by which the grant is made can be impeached by anyone whose interest may be affected by it, and would tend to discredit the authority of the Government in such matters.

(b) The decree of the Circuit Court sustaining the demurrer and dismissing the bill is, therefore, affirmed (c.)

14 Wall. 441.

Note:

2. Act 1790, sec. 5; Act 1793, sec. 10; Act 1836, sec. 16; Act 1870, sec. 58; R. S. sec. 4918.

Wood & Brundage, 9 Wheat. 603 [4 Am. & Eng. 198]. See *Bourne v. Goodyear*, 9 Wall. 811 [p. 209 ante].

Patent in suit:

No. 5,531. Whitney, A. April 25, 1848. Cast Iron Car Wheels.

(b-c) Wallace substitutes "Decree affirmed."

Notes and Citations.

OTHER SUITS ON SAME PATENT :

Whitney v. Mowry, 1870. 2 Bond 45 ; 4 Fish. 207.

Mowry v. Whitney, 14 Wall. 620 [9 Am. & Eng. 1].

Cited :

IN SUPREME COURT IN:

Elizabeth v. American Nicholson Pavement Co., 1878. 97 U. S. 126 ; Bk. 24, L. ed. 1000.

Mahn v. Harwood (Dis. Opin.), 1884. 112 U. S. 354 ; Bk. 28, L. ed. 665.

Tilghman v. Proctor, 1888. 125 U. S. 136.

IN CIRCUIT COURTS IN:

Mowry v. Whitney, April, 1872. 5 Fish. 513.

Birdsall v. McDonald, April, 1874. 1 Ban. & Ard. 165 ; 6 O. G. 682.

Foster v. Lindsay, December, 1874. 1 Ban. & Ard. 605.

Foster v. Lindsay, October, 1875. 3 Dill. 126 ; 2 Ban. & Ard. 172 ; 8 O. G. 1032.

Attorney General v. Rumford Chemical Works, May, 1876. 32 Fed. Rep. 608 ; 2 Ban. & Ard. 298.

Celluloid Mnfg. Co. v. Goodyear Dental Vulcanite Co., June, 1876. 13 Blatch. 375 ; 2 Ban. & Ard. 334 ; 10 O. G. 41.

Lockwood v. Cleveland, February, 1881. 6 Fed. Rep. 721 ; 11 Rep. 557.

New York and Baltimore Coffee Polishing Co. v. N. Y. Polishing Co., December, 1881. 20 Blatch. 174 ; 9 Fed. Rep. 578.

United States v. Gunning, November, 1883. 18 Fed. Rep. 511 ; 26 O. G. 356 ; 16 Reporter, 741.

Lockwood v. Cleveland, March, 1884. 20 Fed. Rep. 164.

Notes and Citations.

Pentlarge v. N. Y. Bung and Bushing Co., May, 1884. 20 Fed. Rep. 314 ; 28 O. G. 370.

United States v. Frazer, October, 1884. 22 Fed. Rep. 106.

Railway Register Mnfg. Co. v. N. Hudson R. C. Co., February, 1885. 23 Fed. Rep. 593.

Consolidated Electric Light Co. v. Edison Electric Light Co., December, 1885. 23 Blatch. 413 ; 25 Fed. Rep. 719 ; 33 O. G. 1597.

United States v. American Bell Telephone Co., September, 1887. 32 Fed. Rep. 591.

Creamer v. Bowers, May, 1888. 35 Fed. Rep. 207.

IN STATE COURTS IN:

Freeman v. Freeman, June, 1886. 2 New Eng. R. 520.

IN TEXT-BOOKS :

2 Abb. Pat. Laws, 1886, p. 35.

Walker on Pats., 1883, pp. 192, 233, 234.

Dec., 1871.] MOWRY v. V

MOWRY v. V

Statement of the case.

THE NICHOLSON PAVEMENT COMPANY, PLAINTIFF IN ERROR, v. CHARLES E. JENKINS.*

14 Wall. 452-457. Dec. Term, 1871.

[Bk. 20, L. ed. 777; 2 Whit. 888; 1 O. G. 465.]

Argued January 12, 1872. Decided January 29, 1872.

Assignment of "invention" of extended term. Construction of contract.

1. An assignment of an interest in an invention secured by letters patent is a contract, and like all other contracts, is to be construed so as to carry out the intention of the parties to it. (p. 520.)
2. It is well settled that the title of an inventor to obtain an extension, may be the subject of a contract of sale. (p. 520.)
3. There is no artificial rule in construing a contract, and effect, if possible, is to be given to every part of it in order to ascertain the meaning of the parties to it. (p. 521.)
4. Where an assignment conveyed a specified territorial interest in "the invention and letters patent," to be enjoyed by the assignee and his legal representatives "to the full end of the term for which the said letters patent are or may be granted;" held, that it was the intention to secure to the assignee the right to use invention in the territory named as long as the inventor or his representatives had the right to use it elsewhere. (p. 521.)

[Citations in opinion of the court:]

Railroad Co. v. Trimble, 10 Wall. 367 [p. 261 ante]. p. 521.

In error to the Circuit Court of the United States for the District of California.

This was an action commenced in the court below by Jenkins, to recover the royalty established by the patentee, for license to lay down the pavement known as the Nicholson pavement. In 1854, Samuel Nicholson obtained letters patent for an improvement in wooden pavement. In

* See Explanation of Notes, page III.

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December, 1863, he obtained a reissue of the letters patent. In December, 1864, said Samuel Nicholson executed the following assignment of an interest in said invention and letters patent, to Jonathan Taylor, viz. :

“Whereas, I, Samuel Nicholson, of Boston, in the State of Massachusetts, invented a certain new and useful improvement in wooden pavements, for which letters patent of the United States of America (numbered 1,584 of reissued patents, and bearing date the 1st day of December, in the year 1863), have been granted to me, giving to me and my legal representatives the exclusive right of making, using and vending the same invention throughout the said United States, the original patent being dated August 8, 1853, and given for the term of fourteen years.

And whereas, Jonathan Taylor, of Milwaukee, in the State of Wisconsin, has agreed to purchase from me all the right, title and interest which I have in and to the said invention, for and in the city of San Francisco, in the State of California, as secured by the said letters patent, and has paid to me the sum of \$1, the receipt whereof is hereby acknowledged. Now, therefore, this indenture witnesseth, that, for and in consideration of the said sum to me paid, I have assigned, sold and set over, and do hereby assign, sell and set over, unto the said Jonathan Taylor, all the right, title and interest which I have in said invention and letters patent, for and in the said city of San Francisco, but in no other place; the same to be held and enjoyed by the said Taylor for the use and behoof of him and his legal representatives, to the full end of the term for which the said letters patent are or may be granted, as fully and effectively as the same would have been held and enjoyed by me had this assignment never been made. In testimony whereof I have hereunto set my signature and affixed my seal, this 1st day of December, A. D. 1864.

SAMUEL NICHOLSON.”

The patent referred to in said assignment is the same patent issued to Nicholson in 1854, erroneously referred to as

Argument of counsel.

issued in 1853, and reissued in 1863. Taylor, prior to August, 1868, assigned all his interest in said patent acquired under said assignment to the Nicholson Pavement Company, original defendant in this suit, and the said interest was held by defendant at the time of the commencement of this suit.

In August, 1867, said Nicholson obtained another reissue of the said letters patent, on an amended specification. Nicholson having subsequently died, in January, 1868, and George T. Bigelow having been appointed his administrator, said Bigelow, in his character of administrator, in July, 1868, procured from the Commissioner of Patents a renewal or extension of said letters patent for seven years, from August 8, 1868, in pursuance of the 18th section of the Act of Congress of July 4, 1836, and of May 27, 1848. Afterward, the plaintiff below acquired through assignment from said Bigelow as administrator made August 14, 1868, all his right, title and interest in said invention and patents for the State of California. Since said August 14, 1868, the defendant below, without leave or license of plaintiff, has constructed and laid down in the city of San Francisco a large amount of pavement, employing in its construction the invention for which said letters patent were issued.

The question in this case is: whether the assignment from Nicholson to Jonathan Taylor, of December 1, 1864, set out in the statement of facts, vested any estate, right, title or interest in the assignee, in or to the extended or renewed term, which was acquired by Bigelow as administrator, under the Act of Congress subsequent to the date of said assignment.

Messrs. R. J. Brent and T. T. Crittenden, for plaintiff in error :

1. The Commissioner of Patents was authorized to grant extensions for seven years, and the original letters patent then became virtually a patent for twenty-one years.

Argument of counsel.

5 Stat. at L., p. 124, sec. 18; Gibson v. Harris, 1 Blatchf. 169; Woodworth v. Edwards, 3 Woodb. & M. 125.

2. The inchoate right of the inventor to the exclusive privileges under an extension of letters patent, is the subject of a sale.

Wilson v. Rousseau, 4 How. 646 [4 Am. & Eng. 436]; Wilson v. Turner, Taney, C. C. 278; affirmed, 4 How. 712 [4 Am. & Eng. 539]; Clum v. Brewer, 2 Curt. 506; Day v. Candee, 3 Fish. 9; Aiken v. Dolan, 3 Fish. 197; Harts-horn v. Day, 19 How. 220 [6 Am. & Eng. 330].

3. The words of the assignment are applicable only to a design to convey both a present and future interest.

Phelps v. Comstock, 4 McLean, 354; Case v. Redfield, 4 McLean, 528; Nesmith v. Calvert, 1 W. & M. 34; Clum v. Brewer, 2 Curt. 507; Woodworth v. Sherman, 3 Story, 174; Mitchell v. Winslow, 2 Story, 639; Chase v. Walker, 3 Fish. 123; Bloomer v. Millinger, 1 Wall. 340 [7 Am. & Eng. 185]; Comrs. v. Whiteley, 4 Wall. 522 [7 Am. & Eng. 442]; Brooks v. Bicknell, 4 McLean, 64; Act of July 4, 1836, 5 Stat. at L. 117.

4. The assignment is to be construed in the sense in which both parties understood and intended it at the time it was made, and to secure to the purchaser the right which he intended to buy, and supposed he had bought, and which the patentee must have intended to sell, and at the time of the contract must have supposed he had sold.

Messrs. J. R. Sharpstein and Matt. H. Carpenter, for defendant in error:

The assignment to the defendant in error is of the extended or renewed term, and it is conceded that it vests in him the right to it, unless the assignment of Nicholson to Taylor under the former term, embraced the extended as well as the original term. So that it is only important now to ascertain whether the assignment of Nicholson to Taylor contains any provision looking to an interest beyond that which the patentee had then already secured. If not, we

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may safely assume that those claiming under Taylor take nothing under the extension.

Wilson v. Rousseau, 4 How. 682 [4 Am. & Eng. 436] ; Bloomer v. McQuewan, 14 How. 549 [5 Am. & Eng. 434] ; Curt. Pat., sec. 203.

The conclusion, therefore, to which the cases, as well as sound principle, lead, is this: that the only presumption applicable to such instruments is, that the parties dealt for the existing term, unless a provision was inserted in the grant or assignment looking to a further interest. Curt. Pat., sec. 209 ; Gibson v. Cook, 2 Blatchf. 144 ; Bloomer v. McQuewan (*supra*) ; Clum v. Brewer, 2 Curt. 520.

In the assignment of Nicholson to Taylor, no allusion is made to an extension or renewal of the patent for a further term, and the interest assigned is clearly that, and that alone, which the patentee had already acquired.

Mr. Justice DAVIS delivered the opinion of the court.

The controversy in this case grows out of the different views taken by the parties to the record, of their rights under the deed of assignment of the 1st of December, 1864, from Nicholson to Taylor, through whom the plaintiff in error claims. The learned court below held that Taylor and his assigns took by it no interest in the renewed or extended term of the patent, but only such interest as was covered by the original patent and the reissues of the original term.

(a) An assignment of an interest in an invention secured by letters patent, is a contract and, like all other contracts, is to be construed so as to carry out the intention of the parties to it. It is well settled that the title of an inventor to obtain an extension may be the subject of a contract of sale, and the inquiry is, whether the instrument of sale employed in this case did secure to the purchaser an interest not merely in the original letters patent, but in any

14 Wall. 456.

(a) Wallace begins Opinion here.

Notes and Citations.

subsequent extension of them. It recites the invention and the agreement of Taylor to purchase the right to use it in the city of San Francisco, and then conveys to him all the title and interest which Nicholson had in the invention and letters patent for and in the said city ; to be enjoyed by Taylor and his legal representatives to the full end of the term for which the said letters patent are or may be granted. There is no artificial rule in construing a contract, and effect, if possible, is to be given to every part of it, in order to ascertain the meaning of the parties to it. Taking this whole deed together, it is quite clear that it was intended to secure to Taylor and his assigns the right to use the invention in San Francisco, as long as Nicholson and his representatives had the right to use it anywhere else. Manifestly something more was intended to be assigned than the interest then secured by letters patent. The words "to the full end of the term for which the said letters patent are or may be granted" necessarily import an intention to convey both a present and a future interest, and it would be a narrow rule of construction to say that they were designed to apply to a reissue merely, when the invention itself, by the very words of the assignment, is transferred. It was easy to have restricted the right to use the invention to the end of the term of the original letters and reissue, but this was not done ; and in view of the right of the inventor in certain contingencies to a renewal—which must have been well known to both buyer and seller of this kind of property—we are led to the conclusion that both parties contracted with reference to it. The recent case of *R. R. Co. v. Trimble*, decided by this court at its last term (10 Wall. 367) [p. 261 *ante*], is not different in principle from this, although in that case the language used is somewhat broader.

Judgment reversed, and a venire de novo awarded.

14 Wall. 456-457.

Notes :

4. Unqualified assignment of *invention*:

Notes and Citations.

Railroad Co. v. Trimble, 10 Wall. 367 [p. 261 *ante*].
Hendrie v. Sayles, 98 U. S. 546.

Assignment of extended term :

Wilson v. Rosseau, 4 How. 646 [4 Am. & Eng. 436].
Railroad Co. v. Trimble, 10 Wall. 367 [p. 261 *ante*].
Hendrie v. Sayles, 98 U. S. 546.

Held not an assignment of extended term :

Mitchell v. Hawley, 16 Wall. 544.

Patent in suit :

No. 11,491. Nicholson, S. August 8, 1854. Reissues 1,583,
December 1, 1863 *a* ;* Reissue 2,748, August 20, 1867 *b*.
Wooden Pavements.

OTHER SUITS ON SAME PATENT :

Nicholson Pavement Co. v. Hatch, 1868. 4 Sawy. 692; 8 Fish.
432 *a*.*

Bigelow v. City of Louisville, 1869. 3 Fish. 602 *b*.

Jenkins v. Pavement Co., 1870. 1 Abb. 567; 4 Fish. 201 *b*.

Am. Nicholson Pavement Co. v. City of Elizabeth, 1870. 4 Fish.
189 *b*.

Am. Nicholson Pavement Co. v. City of Elizabeth, 1873. 6 Fish.
424; 3 O. G. 522 *b*.

* The letter *a* or *b* following a patent is repeated after the title of a case to indicate that the suit was on that particular patent.

Notes and Citations.

Am. Nicholson Pavement Co. v. City of Elizabeth, 1874. 1 Ban.
& Ard. 468 b.

City of Elizabeth v. Pavement Co., 1878. 97 U. S. 126 b.

Cited :

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Hendrie v. Sayles, 1879. 98 U. S. 546; Bk. 25, L. ed. 176.

IN CIRCUIT COURTS IN :

Ruggles v. Eddy, June, 1872. 10 Blatch. 52; 5 Fish. 581.

Mowry v. Grand St. & Newtown R. R. Co., June, 1872. 10 Blatch.
89; 5 Fish. 586.

Wetherill v. Passaic Zinc Co., October, 1872. 6 Fish. 50; 9 Phila.
R. 385; 2 O. G. 471.

Gear v. Holmes, December, 1873. 6 Fish. 595.

Waterman v. Wallace & Sons, September, 1875. 13 Blatch. 128;
2 Ban. & Ard. 126.

Emmons v. Sladdin, December, 1875. 2 Ban. & Ard. 199; 9 O. G.
352.

Fire Extinguisher Mnfg. Co. v. Graham, May, 1883. 16 Fed.
Rep. 543; 24 O. G. 793.

Adams v. Bridgewater Iron Co., February, 1886. 26 Fed. Rep.
824; 34 O. G. 1045.

Johnson v. Wilcox & Gibbs Sewing Machine Co., May, 1886. 23
Blatch. 531; 27 Fed. Rep. 689.

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IN DECISIONS OF COMMISSIONER OF PATENTS IN:

Putnam, March, 1878. 3 O. G. 240.

Holmes & Spaulding, December, 1873. 4 O. G. 581.

IN TEXT BOOKS :

2 Abb. Pat. Law, 1886, p. 103.

Walker on Pats., 1888, p. 196.

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Appeal.

- 1. The patent law of February, 1861, gives to parties to suits arising under any law of the United States giving to inventors the exclusive right to their inventions or discoveries a writ of error on appeal without regard to the sum in controversy. The Act of 1870 does not alter the right of appeal or to a writ of error in this respect. Philp v. Nock . . 470

Assignment.

- 1. Where the assignment was of "all the right, title, and interest which I have in said invention, as secured to me by letters patent, and also all right, title and interest which may be secured to me for alterations and improvements on the same from time to time," "the same to held and enjoyed * * * to the full end of the term for which said letters patent are or may be granted," it was construed to include the entire inventions and all alterations and improvements, and all patents relating thereto, whensoever issued, to the extent of the territory specified. Phila., Wil. & Balt. R. R. Co. v. Trimble 261
- 2. Such an assignment is of the extended term (act 1836, secs. 11 and 18), and though made before the grant of the extension, is valid in view of Gayler v. Wilder, 10 How. 477 [5 Am. & Eng. 188], which is reaffirmed. Phila., Wil. & Balt. R. R. Co. v. Trimble 261
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- tatives "to the full end of the *term* for which the said letters patent are or *may* be granted;" *held*, that it was the intention to secure to the assignee the right to use invention in the territory named as long as the inventor or his representatives had the right to use it elsewhere. Nicholson Pavement Co. v. Jenkins 516
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1. Where an interlocutory decree was rendered in favor of C. G. and others, and while the case was still before a master for an accounting for damages for infringement, a bill was filed by defendant thereto to set off a judgment against C. G. one of the complainants, and praying a discovery of the respective shares of the damages claimed by C. G. and others in order to set off the judgment against his share; *held* that it was an original bill and not a cross-bill, and that it could not be sustained as the latter, because when filed no decree had passed in the original suit for the payment of damages. Rubber Co. v. Goodyear, 200
2. *Held* that the bill being in no wise auxiliary to the original suit nor in continuation of that proceeding, the case was not one proper for substituted service. Rubber Co. v. Goodyear, 200

Bill of Review.

1. Whether an application to file a bill of review based on newly discovered matter shall be granted or refused, rests in the sound discretion of the court, the requisite leave is never a matter of right. Providence Rubber Co. v. Goodyear, 194
- See Estoppel, 1.

Burden of Proof.

1. The burden of proof is on defendant to show that the notice required by act 1836, sec. 15, as to prior knowledge, and use was given to the plaintiff thirty days before the trial, and if he fails to do so, he cannot introduce any evidence to controvert the novelty of the patent. Blanchard v. Putnam . 107

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2. Where defendant contends that he does not infringe, he should introduce proof to such effect. <i>Bennett v. Fowler</i>	124
3. Where complainants produce their patents in evidence, it casts on defendant the burden of proving that patentees were not the first and original inventors. <i>Seymour v. Osborne</i>	290
4. Where a general replication is filed, a defense in the answer setting up new matter, must be proved. <i>Seymour v. Osborne</i>	290

Change in Form

See Particular Patents, 25.

Charge to Jury.

1. Where patentee sued a British corporation and its agent for damages, for having deceptively and fraudulently held out to him a profession of intention to conclude an agreement respecting patentee's cotton-tie, it being done with the purpose of keeping his cotton-tie out of the market, so as to promote the sale of defendants' cotton-tie, a charge that if "the corporation never gave any authority to the defendant, their agent, to assent to the proposal, or draft the agreement in their behalf and in their name, and never sanctioned the same as a corporate act, the suit could not be maintained against them" is error, and *held* that no such question as a suit on the contract if the instruction was so meant, was before the jury. *Butler v. Watkins* 496

See Waiver, 2.

Chemical Equivalents.

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Claims.

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Collusive Suit.

1. Where it appeared that complainants had purchased in the patents under which the suit was defended, were owning both sides of the subject matter of the litigation, and that defendants having taken in consideration for the sale, stock in complainants' company, their interest had been transferred to the side of the complainants; a motion to dismiss

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the appeal was allowed, notwithstanding that the damages for the alleged infringement had not been compromised. *American Wood Paper Co. v. Heft* 100

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See Formal Change, 1; Particular Patents, 7, 14, 16, 18; Specification, 1.

Commissioner.

Reissue for Error of Commissioner.
See Particular Patents, 24.

Commissioner's Decisions.

1. Where the Commissioner grants a reissued patent, his decision in the premises, in a suit for infringement, is final and conclusive, and is not re-examinable in such a suit in the Circuit Court, unless it is apparent upon the face of the patent that he has exceeded his authority, that there is such a repugnancy between the old and new patent that it must be held as a matter of legal construction that the new patent is not for the same invention as embraced and secured in the original. *Seymour v. Osborne* 290
2. All matters of fact involved in the hearing of an application to reissue are conclusively settled by the Commissioner's decision. Matters of construction arising on the face of the instrument are still open. *Seymour v. Osborne* 290

Composition of Matter.

1. Where a patent is claimed for the discovery of a new substance by means of chemical combinations, it should state the component parts of the new manufacture claimed with clearness and precision, and not leave the person attempting to use the discovery to find it out "by experiment." *Tyler v. Boston*. 1
- See Identity, 1; Particular Patents, 4.

Conclusiveness of Commissioner's Decision.

See Commissioner's Decision, 1, 2.

Construction of Claims.

1. Where the claim immediately follows the description of the invention, it may be construed in connection with the explanations contained in the speci-

fications, and where it contains words referring back to the specifications, it cannot properly be construed in any other way. And where the defense was that certain claims were for an effect, and not for any particular machinery, *held* that in view of the words "substantially as described," or "substantially as set forth," or words of equivalent import employed in each claim, the defense was without merit. *Seymour v. Osborne* 290

Construction of Patents.

1. A patent should be construed in liberal spirit, to sustain the just claims of the inventor. *Providence Rubber Co. v. Goodyear* 150

Construction of Statutes.

1. Where, subsequent to the alleged infringement, but before the commencement of his suit, plaintiff, the original owner of the patent, assigned to a third party an undivided half of his interest, *held* in view of Act 1836, sec. 14, that he was a "person * * interested" competent to sue to recover the damages for such infringement. *Moore v. Marsh* 14
 2. The word "interested," Act 1836, sec. 14, construed to mean that the right of action is given to the person or persons owning the exclusive right at the time the infringement is committed. *Moore v. Marsh* 14
 3. Act of 1836, sec. 16, *annulling patents* considered. *Mowry v. Whitney* 506
- Act 1836, § 11. See Assignment, 2.
 Act 1836, § 13. See Executor, 3.
 Act 1836, § 15. See Burden of Proof, 1; Evidence, 5; Notice, 1; Prior Knowledge and Use, 1.
 Act 1836, § 16. See Fraud 1; Repeal 3.
 Act 1836, § 18. See Assignment, 2.
 Act 1861, —. See Appeal, 1; Design, 1.
 Act 1861, § 2. See Waiver, 1.
 Act 1861, § 11. See Particular Patents. 9.
 Act 1870, —. See Appeal, 1.

Contract.

1. Where there is doubt as to the proper construction of an instrument, that put upon it by the parties is entitled to great consideration. But where its meaning is clear in the eye of the law, the error

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- of the parties cannot control its effect. Philadelphia, Wilmington and Baltimore R. R. Co. v. Trimble 261
2. Where a written agreement grants an interest in a patent, in consideration of payments and promises by grantee, and grantee never makes the payments, and by common consent of grantor and grantee, the agreement never goes into operation in any way, because of grantee's inability to comply therewith, and grantee never claims any rights under it, but always recognized his grantor's exclusive right, and acted as his agent, such a contract passes no title. Philadelphia, Wilmington and Baltimore R. R. Co. v. Trimble 261
3. Where the agreement of the defendant corporation was signed by its treasurer, who affixed his private seal, *held* that neither the failure of plaintiff to produce an order in writing by the board of directors, nor the absence of the corporate seal were essential to the validity of the contract; and that the acting of the company upon it and the payment of money under it amounted to a ratification. Eureka Co. v. Bailey Co. 280
4. A contract entered into on behalf of the United States with an army officer, which amounted to a license from him to the government to manufacture or procure his patented tent and use it, upon payment of a stipulated sum, and which was approved by the Secretary of War, *held* a valid contract and not within the prohibition of army regulation No. 1,002, forbidding certain purchases and contracts by and with officers or agents in the military service. That regulation does not apply to contracts on behalf of the United States, which require for their validity the approval of the Secretary of War. United States v. Burns, 458
5. There is no artificial rule in construing a contract, and effect, if possible, is to be given to every part of it in order to ascertain the meaning of the parties to it. Nicholson Pavement Co. v. Jenkins, . . 516

See Estoppel, 2.

Corporation.

See Contract, 3.

Court of Claims.

1. The Court of Claims in deciding upon the rights of claimants is not bound by any special rules of pleading. United States v. Burns, 458

Cross-bill.

See Bill in Equity, 1.

Damages.

See Recovery, 1.

Date of Expiration of Patent.

See Particular Patents, 1.

Date of Invention.

1. The date of invention carried back to the first successful trial of the device. *Whiteley v. Swayne*, 70

Decree.

1. The decree of the Circuit Court "for all the profits made in violation of the rights of the complainants, under the patent aforesaid, by respondents, by the manufacture, use, or sale of any of the articles named in said bill," is correct. *Providence Rubber Co. v. Goodyear*, 150

Defense.

1. A charge that the original patentee in this case fraudulently and surreptitiously obtained the patent for that which he knew was invented by another, unaccompanied by the further allegation that the alleged first inventor was at the time using reasonable diligence in adapting and perfecting the invention, is not sufficient to defeat the patent, and constitutes no defense to the charge of infringement. *Agawam Co. v. Jordan*, 24
 2. Where a proviso annexed to an extension granted by special act protected from liability those using the invention at the time of the extension, and it was subsequently reissued, and suit brought on the reissue, an allegation that the machinery was in use before the patent in this case was granted, *held* no defense to the infringement. *Agawam Co. v. Jordan*, 24
- See Burden of Proof, 4; Infringement, 1; Notice, 2.

Delay.*Delay in Applying for Patent.*

1. Mere forbearance to apply for a patent during the progress of experiments, and until the party has perfected his invention and tested its value by actual practice, affords no grounds for any presumption of abandonment. *Agawam Co. v. Jordan* . . . 24
- See Abandonment, 1.

Description.

See Prior Publication, 1 ; Specification, 1.

Design.

1. An arranged figure in an elastic bed, by which it is printed onto pails is not the design protected by Act 1861, but it is the design transferred to the pail or ware which is protected thereby. *Clark v. Bousfield* 245

See Particular Patents, 9.

Diligence.

See Delay ; Laches.

Divisional Reissue.

See Particular Patents, 8.

Doctrine of Equivalents.

See Equivalents, 2.

Double Use.

1. Where a prior instrument for "cutting tongues and grooves, mortises, &c.," was set up as invalidating a patent for a saw in some respects similarly constructed. *Held* that if what the former instrument actually did was in its nature the same as sawing, and its structure and action suggested to the mind of an ordinarily skillful mechanic this double use to which it could be adapted, without material change, then such adaptation to the new use was not a new invention and was not patentable. *Tucker v. Spaulding* 474

Effect.

See Construction of Claims, 1.

Employer and Employee.

1. Persons employed, as much as employers, are entitled to their own independent inventions ; but where the employer has conceived the plan of an invention and is engaged in experiments to perfect it, no suggestions from an employé not amounting to a new method and arrangement which, in itself, is a complete invention, is sufficient to deprive the employer of the exclusive property in the perfected improvement. *Agawam Co. v. Jordan* 24
2. If an officer in the military service, not specially employed to make experiments with a view to sug-

gesting improvements, devises a new and valuable improvement in arms, tents or any other kind of war material, he is entitled to the benefit of it, and to letters patent for the improvement from the United States, equally with any other citizen not engaged in such service; and the government cannot, after the patent is issued make use of the improvement any more than a private individual, without license from the inventor or making compensation to him. *United States v. Burns* . . . 458

See Contract, 4; Particular Patents, 22.

Equivalent.

1. The term "equivalent" when used with regard to the chemical action of such fluids as can be discovered only by experiment, only means *equally good*. *Tyler v. Boston* 1
2. Patentees are entitled in all cases to invoke to some extent the doctrine of equivalents, but they are never entitled to do so in any case to suppress all other substantial improvements. *Seymour v. Osborne* 290

See Particular Patents, 4.

Error.

Reissue for Error of Commissioner.

See Particular Patents, 24.

Estimation of Damages.

See Account of Damages, 1, 2, 3.

Estoppel.

1. Where on motion made for leave to file a bill of review grounded on newly discovered matter, it appeared that such matter was sufficiently shown in the exhibits in the original case and that leave to file the bill would not effect the decree which had been rendered, *held* that appellants were estopped from denying knowledge of their contents, and that their laches of seven years was fatal to their application. *Providence Rubber Co. v. Goodyear* 194
2. Doubted that after an agreement relating to the use of a reissued patent made on due deliberation and intended to adjust conflicting rights, and after making machines thereunder, defendants, licensees under the agreement, could set up the defense that the machines were not covered by the original

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- patent, in the absence of frauds or surprise shown by cross-bill or in the answer. *Eureka Co. v. Bailey Co.* 280
8. Where patentee remained silent and made no claim of invention at the time when defendant, while preparing to construct the thing subsequently patented, described it in his presence, but without the production of drawings, *held* that it did not tend to show fraud upon the Patent Office, and much less did it constitute a fraud in law; neither did it amount to an estoppel *in pais* against patentee, unless it mislead defendant to his hurt. *Philadelphia, Wilmington and Baltimore R. R. Co. v. DuBois* 488
4. Silence does not estop a party, unless it has misled another to his hurt. *Philadelphia, Wilmington and Baltimore R. R. Co. v. DuBois* 488
- See Reissue, 2.

Evidence.

1. The rule of law is that letters patent afford a *prima facie* presumption that patentee is the original and first inventor of what is therein described as his improvement. *Agawam Co. v. Jordan* 24
2. Letters patent are *prima facie* evidence that the patentee is the first and original inventor of the improvement claimed therein. *Blanchard v. Putnam* 107
3. Letters patent are *prima facie* evidence that patentee is the original and first inventor. *Seymour v. Osborne* 290
4. Unreliable testimony will not invalidate letters patent. *Agawam Co. v. Jordan* 24
5. Where, apart from the question of damages, one of the two issues presented by the pleadings was, whether the patentee of the patent on which suit was founded was the first and original inventor of the improvement therein, and defendants introduced evidence of prior knowledge and use without giving the notice of special matter required by act of 1836, sec. 15, of the names and places of residence of those having such knowledge, the evidence was held inadmissible, although reversal for error was nowhere based upon the failure to comply with the requirement of the statute. *Blanchard v. Putnam* 107
6. Where the bill of exceptions showed that in a suit at

law for the infringement of a patent the court below refused to admit the testimony of experts to prove the identity of the invention with that covered by a prior patent, confessedly prior in date to that of plaintiff, and refused to permit such prior patent to be read to the jury. *Held* that these rulings were erroneous, and a new trial was ordered.

Tucker v. Spaulding 474

See Burden of Proof, 1, 8; Estoppel, 1; Fraud, 8; Prior Knowledge and Use, 1; Recitals, 1; Reissue, 2.

Executor.

1. Neither the Federal nor the State tribunals either at law or in equity can recognize the authority of an executor any more than that of an administrator, and neither will aid him to obtain possession and control of the estate, until he has qualified in the manner as prescribed by the statutory provisions of the State. *Providence Rubber Co. v. Goodyear* 150
2. Where of several executors appointed by a will, one only who had qualified as such, brought suit on the patent, *held* that by the settled rules of common law he was entitled to maintain it. *Providence Rubber Co. v. Goodyear* 150
3. Where pursuant to Act 1836, sec. 13, a reissue is granted an executor as such, he can sustain a suit on the patent in all respects as if he had been designated in it as *trustee* instead of executor. *Providence Rubber Co. v. Goodyear* 150
4. Objections to the authority of an executor to sue on letters patent in his representative character, should be taken by a plea in abatement. *Providence Rubber Co. v. Goodyear* 150

Experiment.

1. Crude and imperfect experiments are not sufficient to confer a right to a patent; but in order to constitute an invention must have been reduced to practice and embodied in some distinct form. *Seymour v. Osborne* 230

See Abandoned Experiment, 1; Delay, 1.

Expert.

See Evidence, 6.

Expired Patent.

1. Where the bill was brought to vacate the extension of a patent, and it appeared that the extension had expired before the suit was commenced, *held* that there was no equity to support the application to set it aside, and the demurrer to the bill must be sustained and the bill dismissed. *Bourne v. Goodyear*, 209

Extension.

1. It is well settled that the title of an inventor to obtain an extension, may be the subject of a contract of sale. *Nicholson Pavement Co. v. Jenkins*, . . . 516
See Assignment, 1, 2; Defense, 1, 2; Particular Patents, 23, Repeal, 1.

First and Original Inventor.

See Burden of Proof, 3; Inventor, 1.

Foreign Courts.

1. Proceedings in the Common Pleas in England can have no validity here, even of a *prima facie* character. *Bischoff v. Wethered*, 218

Formal Change.

1. Mere formal alterations in a combination are no defense to the charge of infringement, and the withdrawal of one ingredient from the same and the substitution of another which was well known at the date of the patent as a proper substitute for the one withdrawn, is a mere formal alteration of the combination if the ingredient substituted performs substantially the same function as the one withdrawn. *Seymour v. Osborne*, 290

Fraud.

1. Where in suit for infringement, the question of fraud in procuring the extension of the patent was raised, *held* that letters patent cannot be abrogated for fraud in any collateral proceeding except in cases of interferences (Act 1886, sec. 16). *Providence Rubber Co. v. Goodyear*, 150
2. Defendants, when sued for infringement, are not at liberty to set up as a defense that the patent has been fraudulently obtained, no fraud appearing upon its face. *Phila., Wil. & Balt. R. R. Co. v. Du Bois*, 433

8. In actions of fraud large latitude is always given to the admission of evidence. If a motive exists prompting to a particular line of conduct, and it be shown that in pursuing that line a defendant has deceived and defrauded one person, it may justly be inferred that similar conduct towards another, at about the same time, and in relation to a like subject was actuated by the same spirit. *Held* that letters of defendant to a third party offered as evidence to show such an animus and object in view, were erroneously rejected. *Butler v. Watkins*, 496
- See Defense, 1; Estoppel, 3; Reissue, 1; Repeal, 1.

Government Officer.

See Contract 4; Employer & Employé, 2; License, 2.

Identity.

1. A charge that the substantial identity of one compound of given proportions with another compound varying in the proportions, is a question of fact and for the jury, sustained. *Tyler v. Boston*, 1
2. It is not the *construction of the instrument*, but the character of the thing invented, which is sought in questions of identity and diversity of inventions. *Bischoff v. Wethered*, 218
- See Evidence, 6; Infringement, 1; Questions for Jury, 1, 2.

Identity of Original and Reissue.

See Reissue, 2, 3.

Improvement.

1. In what patentable improvements on an old machine may consist. *Seymour v. Osborne*, 290
- See Particular Patents, 16.

Infringement.

1. On the question of infringement the only proper comparison on that issue is that of the defendants' machine with that of the plaintiff, and it is no answer to the cause of action to plead that defendant is licensee of the owner of another patent and that his machine is constructed in accordance therewith. *Blanchard v. Putnam*, 107
- See Burden of Proof, 2; Fraud, 2; Particular Patents, 19, 25; Repeal, 1.

Interference.

See Fraud, 1.

Invention.

Double use. See Double Use, 1 ; Experiment, 1.

Substitution not involving Invention.

See Particular Patents, 8, 16.

Inventor.

1. Whosoever first perfects a machine is entitled to the patent, and is the real inventor, although others may have previously had the idea and made some experiments towards putting it in practice.
Agawam Co. v. Jordan, 24
2. He is the first inventor and entitled to the patent, who, being an original discoverer, has first perfected and adapted the invention to actual use.
Whiteley v. Swayne, 70
8. He is the first inventor, and entitled to a patent for his invention, who first perfected and adapted the same to use, and until the invention is so perfected and adapted to use, it is not patentable. Seymour v. Osborne, 290
See Employer and Employé, 1, 2 ; Evidence, 2, 3 ;
Particular Patents, 13, 22 ; State of the Art, 1.

Joinder of Inventions.

1. No general rule can be given by which to determine when a given invention or improvements shall be embraced in one, two or more patents. Some discretion must necessarily be left on this subject to the head of the Patent Office. Bennett v. Fowler, 124
See Particular Patents, 9.

Joint Inventors.

See Particular Patents, 22.

Jurisdiction.

See Executor, 1 ; Expired Patent, 1 ; Foreign Courts, 1.

Laches.

See Delay.

See Estoppel, 1.

License.

1. A license granted C. Goodyear, " his executors, administrators and assigns to ' use a patented invention ' at his own establishment, but not to be dis-

posed of to others for that purpose without the consent of the said C. Goodyear," construed not to authorize its use in an establishment owned by Goodyear together with others. *Providence Rubber Co. v. Goodyear*, 150

2. Where a license to make and use a patented tent was granted by an army officer, the patentee, to the United States, stipulating for the payment of a certain sum, and to continue beyond a certain date unless licensee gave notice to the contrary, and subsequently licensee directed the payment to be discontinued and withheld, but continued to manufacture and use the tents, *held* that it was no termination of the contract, neither was it a repudiation of licensee's liability for the tents made prior or subsequent to the withholding of the payments. *United States v. Burns*, 458

Licensee.

See Infringement, 1.

Machine.

See Particular Patents, 5.

Marking Patented Articles.

See Waiver, 1.

Mechanical Skill.

Particular Patents, 8.

Multifariousness.

1. *Seem* that a bill joining five several patents in the charge of infringement, is not open to objection where all the claims appertain to the same general subject, and it requires all the inventions in question to constitute a complete machine, such as complainants make and furnish the public. *Seymour v. Osborne* 200

Notice.

1. A party giving notice of prior knowledge and use under act 1836, sec. 15, is not bound to be so specific as to the places where the use is shown, as to relieve the other from all inquiry or effort to investigate the facts. If he fairly puts his adversary in the way that he may ascertain all that is necessary to his defense or answer, it is all that can be required. *Wise v. Allis* 143

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2. Where no issue such as the defense now set up was tendered to complainants, and they had no notice that such a defense was intended to be relied upon, *held* that the proofs without the requisite allegations were unavailing, and the defense could not be entertained. *Providence Rubber Co. v. Goodyear* 150
- See Novelty, 1.

Novelty.

- 1 The defense of want of novelty of the patented invention cannot be set up in the absence of notice. *Eureka Co. v. Bailey Co.* 280
- See Particular Patents, 7, 18, 26.

Oath.

See Recitals, 1.

Objections.

See Executor, 4.

Particular Patents.

1. Letters Patent No. 3,633, C. Goodyear, June 15, 1844. India-Rubber, extended; expire June 14, 1865. *Bourne v. Goodyear* 209
2. Letters patent No. 8,720, Feb. 10, 1852, B. Densmore Harvester, *held* to be for a practical machine prior in date of invention over reissues Nos. 985 and 986, T. S. Steadman, June 19, 1860, Harvesters (orig. No. 10,967, May 23, 1854), granted for an unsuccessful and abandoned experiment. *Whiteley v. Swayne* 70
3. Where original letters patent No. 27,899, F. F. Fowler, April 17, 1860, Hay Elevator, was reissued in two divisions, Nos. 1,869 and 1,871. February 14, 1865, in the latter of which the lifter was somewhat differently constructed, so as to adapt it especially to the stacking of hay, the divisional reissues were sustained. *Bennett v. Fowler* . . . 124
4. Letters patent No. 35,015, Tyler, C. N., March 24, 1863. Burning Fluid, commented on with reference to the insufficiency of the statement in the specification that "the exact quantity of fusel-oil which is necessary to produce the most desirable compound must be determined *by experiment*," and the term "equivalent" construed to mean "equal bulk," in view of the specification's description as "by measure crude fusel-oil one part, kerosene one part." *Tyler v. Boston* 1

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5. Claim 1 of letters patent No. 38,512, J. DuBois, September 23, 1862, Pier for Bridge, for "building and setting piers by means of a floating coffer-dam, substantially as set forth," construed to be for the instrument being the coffer-dam, constructed as described in the specification, and not to be for a process. Phila., Wil. & Balt. R. R. Co. v. DuBois 433
 6. The 2d claim for "the use of the tube which constitutes the dam for encasing and strengthening the pier, substantially as set forth," construed to be for the use of the tube, whether longer or shorter, no matter what its shape or material, or of how many parts consisting. Phila., Wil. & Balt. R. R. Co. v. DuBois 433
 7. Where letters patent No. 42,186, C. T. Woodman, March 29, 1864, Ornamenting Machine, claiming "boarding or pebbling skins or leather by means of a single short cylinder rolling over a table with the requisite pressure," was construed to be for the combination of the figured roller with the machine for operating it, and it appeared that a figured roller had been worked by hand for the same purpose, and that a smooth-faced leather roller had been used in a similar machine, *held* an instruction to the jury, that if plaintiff's machine had been anticipated in every part of its construction, except the figures or designs on the roller, which roller was old, he was not entitled to recover, was erroneously refused. Stimpson v. Woodman 221
 8. *Held* further, the machine being old, and the figured roller worked by pressure old, it did not require invention, but involved simple mechanical skill to stamp the figure on the smooth-faced roller of the machine, or to substitute the old figured roller for the purpose. Stimpson v. Woodman 221
 9. Where letters patent No. 45,580, R. & A. Cross, December 27, 1864, Pail Graining Machine, claimed "arranging the elastic material aforesaid" (having a design thereon, which is printed upon the pail) "whether curved or rectangular in form, in a series of distinct staves or designs substantially as and for the purpose shown and set forth," *held* that it was for a part of the machine, and patentable other than as a design under Act 1861, sec.

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11, and that the design was but incidental and as such had no other protection than that which the patent secured to the inventor of the machine, and the right to its use went with the machine.	
Clark v. Bousfield	245
10. Where in a suit for infringement of reissued letters patent, No. 786, J. Fairclough, August 2, 1859, (original No. 22,356, December 21, 1858), Balancing Millstones, defendant gave notice in addition to the particular town and city where they were used, the names and residences of witnesses by whom the use was to be proved, but did not specify the mill in which such prior use had been made, <i>held</i> that in respect to such large objects as millstones, there was sufficient precision and certainty in the notice. Wise v. Allis	143
11. The patentability of process and product considered, and <i>held</i> that the product claimed in the reissued letters patent No. 1,084, C. Goodyear, November 20, 1860, was patentable independently of the process. Providence Rubber Co. v. Goodyear	150
12. Where on surrender of reissued letters patent No. 156, C. Goodyear, December 25, 1849, processes for the manufacture of India-rubber, claiming (1) "the curing of caoutchouc or India-rubber by subjecting it to the action of a high degree of artificial heat," and (2) "The preparing and curing the compound of India-rubber, sulphur and a carbonate or other salt or oxide of lead by subjecting the same to the action of artificial heat," a re-issue of the same for the product was granted. No. 1,084 November 20, 1860, claiming "the new manufacture of vulcanized India-rubber (whether with or without other ingredients), chemically altered by the application of heat" it was sustained as within the right of patentee or his representatives to enlarge or restrict the claim, so as to give it validity and secure the invention. Providence Rubber Co. v. Goodyear	150
13. <i>Held</i> that Charles Goodyear was the first and original inventor of the process described in reissue letters patent granted his executor No. 1,084 product and 1,085, November 20, 1860, India-Rubber Process, original patent No. 3,633, June 15, 1844. Providence Rubber Co. v. Goodyear	150
14. The particular patents in suit, reissued letters pat-	

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- ent Nos. 1,109, January 1, 1861; No. 1,682, May 31, 1864; No. 1,177 (No. 72), May 7, 1861; No. 1,683, May 31, 1864. and original patent No. 10,459, January 24, 1854, Harvesters, *held* to have sufficiently pointed out in their specifications and claims the parts, improvements or combinations which they claim as their respective inventions, and that the reissues are in due form. *Seymour v. Osborne* 290
15. Reissued letters patent No. (4) 1,109, January 1, 1861, and No. 1,682, May 31, 1864, of original patent No. 8,192, Palmer and Williams, July 1, 1852, Harvester; and reissued letters patent No. (72) 1,177, May 7, 1861, and No. 1,683, May 31, 1864, of original patent No. 8,212, W. H. Seymour, July 8, 1851, Harvester; and Letters Patent No. 10,459, Palmer and Williams, January 24, 1854, Harvester. Examined and *held* infringed. *Seymour v. Osborne* 290
16. *Held* that the four reissued letters patent Nos. 1,109, 1,117, 1,682 and 1,683, are for improvements on a machine as distinguished from a machine patentable under the act of Congress, and consist of new combinations of old elements, and involve invention. *Seymour v. Osborne* 290
17. Reissue No. (72) 1,177, May 7, 1861, *held* not anticipated by Hussey's abandoned experiment, built prior to the perfecting of the patented invention, but never reduced to practice as an operative machine. *Seymour v. Osborne* 290
18. The two claims of reissued letters patent No. (72) 1,177, May 7, 1861, *held* not anticipated by Burrall's prior device showing only one of their elements in a substantially different combination. *Seymour v. Osborne* 290
19. Claim 1 of reissued letters patent No. 1,262, B. Densmore, January 28, 1862, Harvester, for "hanging the driving-wheel in a supplementary frame, or its equivalent, which is hinged at one end by the main frame, while its opposite end may be adjusted and secured at various heights, or be left free as desired, whereby the cutting apparatus may be held at any desired height for reaping or be left to accommodate itself to the undulations of the ground, substantially as described," *held* infringed by a harvester constructed with a main frame which carries the cutting apparatus, and

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- having attached to the main frame a secondary (supplemental) frame, which carries the driving-wheel, the secondary frame being prolonged beyond the driving-wheel to a standard in the form of an arc, having holes at various heights, by which the secondary frame and with it the axis of the driving-wheel is secured at fixed distances above the main-frame. *Whiteley v. Kirby* . . . 397
20. Reissued letters patent No. 1,262, B. Densmore, January 28, 1862, Harvester, of original patent No. 8,720, February 10, 1852, *held* not anticipated by patents No. 6,517, N. Platt, June 12, 1849, and No. 2,007, A. Churchill, March 1, 1841, Harvesters. *Whiteley v. Kirby* . . . 397
21. Reissued letters patent No. 1,714. J. Goulding, June 28, 1864. Machine for Manufacture of Wood and other Fibrous Material (original granted December 15, 1826), examined. *Agawam Co. v. Jordan*. 24
22. Where the claims of the reissued letters patent No. 1,714, J. Goulding, June 28, 1864, Machine for Manufacture of Wool were construed to be for the several combinations described, and the defense was that patentee was not the original and first inventor, but had fraudulently obtained it from W., his employee, who it appeared had made and suggested the use of what proved to be a useful auxiliary part of the entire invention (the spool and drum), *held* that W.'s work was not the invention described in the patent, nor such a material part of the same as to constitute W. the inventor or the joint-inventor, of the improvement, and was no defense to the charge of infringement. *Agawam Co. v. Jordan* . . . 24
23. Where the patent granted J. Goulding, December 15, 1826, for Machine for Manufacture of Wool, was extended by special act, the extension being made subject in express terms to the proviso contained in the act, *held* that re-issue No. 1,714, June 28, 1864, of the extended patent was not void for failure to recite the terms of the proviso. *Agawam Co. v. Jordan* . . . 24
24. The broad claim of reissued letters patent No. 1,940, C. H. & H. E. Davidson, April 25, 1865, Syringe, sustained, in view of the fact that the restrictions in the claim of the original No. 16,956, March 31, 1857, which was at first substantially indential

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with that of the reissue arose from an error into which the inventors were led by the Commissioner of Patents himself. <i>Morey v. Lockwood</i>	78
25. <i>Held</i> that the reissue claim which was for "a syringe having an eastic bulb or chamber, flexible tubes and a suitable valvular arrangement when organized, so as to operate substantially as described," was infringed by an arrangement of the same parts and materials, but not connected together in an axial line as in patentee's invention; and that it was a change in form and not in substance. <i>Morey v. Lockwood</i>	78
26. The novelty of the invention sustained. <i>Morey v. Lockwood</i>	78

Patent.

See Burden of Proof, 3.
Evidence, 1, 2, 3; Reissue, 2.

Patentability.

See Design, 1; Improvement, 1; Particular Patents, 11.

Personal License.

See License, 1.

Plea in Abatement.

See Executor, 4.

Pleading.

See Court of Claims, 1.

Presumption.

Presumption of Abandonment; see Abandonment, 1;
Delay, 1; Evidence, 1.

Prior Knowledge and Use.

1. Where the answer denied that the assignor of complainant was the first and original inventor of the improvement, *held* that the defense of previous invention, knowledge and use, requiring the statutory thirty days' notice of special matter giving names and places of residence of those who are to prove such prior knowledge (act 1836, sec. 15), was not admissible thereunder; but it was admitted under another part of the answer. *Agawam Co. v. Jordan* 24
- See Burden of Proof, 1; Evidence, 5; Notice, 1; Particular Patents, 10.

Prior Public Use and Sale.

1. Where respondents alleged in their answer that the invention at the time the application was filed, and for a long time before, had been on sale and in public use, without more, it was held not a good defense against the charge of infringement, because of failure to state that it was for more than two years prior to the date of filing the application. *Agawam Co. v. Jordan* 24

Prior Publications.

1. Patented inventions cannot be superseded by the mere introduction of a foreign publication though of prior date, unless the description and drawings contain and exhibit a substantial representation of the patented improvement, in such full, clear and exact terms as to enable any person skilled in the art or science to which it appertains to make, construct and practice the invention to the same practical extent as they would be enabled to do if the information were derived from a prior patent. *Seymour v. Osborne* 290

Priority of Invention.

See Questions for Jury, 1.

Process.

See Particular Patents, 5.

Reissue of Process for Product.

See Particular Patents, 12.

Process and Product.

See Particular Patents, 11, 12.

Profits.

1. Profits are the gain made upon any business or investment, when both the receipts and payments are taken into the account. Rule stated for estimating cost in order to find the difference between cost and yield, in an accounting for profits for infringement. *Providence Rubber Co. v. Goodyear*. 150

Questions for Jury.

1. On questions of priority of invention, the identity or diversity of the several inventions described in the patents produced, is a question of fact for the jury, and the court cannot be called upon to compare

the specifications and instruct the jury as a matter of law, whether they are or are not identical.

Bischoff v. Wethered 218

2. When suit for the infringement of a patent is brought in the law in preference to the equity side of the court, the question of the diversity or identity of the invention covered by plaintiff's patent with an alleged prior invention, must be submitted to the jury, if there is such resemblance as raises the question at all. Tucker v. Spaulding 474

See Identity, 1.

Ratification.

See Contract, 3.

Rebellion.

1. Where subsequent to a contract made with the United States respecting a patented article the owner of the patent, an army officer, assigned a half interest in the same, to another officer B., and A. joined the rebels while B. remained loyal, *held* on suit brought by B. in the Court of Claims to recover certain payments under the contract that B.'s interest could not be affected by the disloyalty of his joint owner A.; and that the Government having recognized B.'s half interest and paid him a moiety of the royalty due under the contract, his interest became severed from the claim of his joint owner A., and that the necessity of pleading in their joint name, if both were living, did not apply to a case in the Court of Claims. United States v. Burns 458

Receiver.

1. Where there was an assignment of a patent by a receiver in proceedings in which there was no issuing of any process against the defendant, no steps were taken to bring him before the court, and in which he did not appear, the assignment was *held* a nullity. Phila., Wil. & Balt. R. R. Co. v. Trimble 281

Recitals.

1. Recitals in letters patent, original and reissued, that the required oath was taken before the same was granted, are in the absence of fraud conclusive evidence that the necessary oaths were taken by the

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applicants before the letters patent were granted.

Seymour v. Osborne 290

See Particular Patents, 23.

Recovery.

1. Complainants cannot recover damages for any infringement anterior to the date of the reissued patent sued on. Agawam Co. v. Jordan 24

See Right of Action, 1.

Reduction to Practice.

See Experiment 1 ; Inventor, 1, 2, 3.

Reissue.

1. A reissue cannot be attacked collaterally for fraud in obtaining it ; it can only be considered in some direct suit to improve and set aside the patent. Eureka Co. v. Bailey Co. 290
2. Where the defense set up was that the reissued patents were for different inventions from those embraced in the original patents, *held* that it was a matter of construction for a court of equity to be determined by a comparison of the original and reissued patents aided or not by the testimony of expert witnesses, and that respondents having failed to introduce the original patents in evidence, the defence was not open to them. Seymour v. Osborne, 290
3. Reissued letters patent must be for the same invention as that embraced and secured in the original, if not the reissue is invalid. Permissible variation between the original and reissued patent. Seymour v. Osborne, 290

See Defense, 2 ; Executor, 3 ; Particular Patents, 12-24 ; Recovery, 1 ; Repeal, 1.

Conclusiveness of Commissioners' Decision on grant of Reissue.

See Commissioner's Decision, 1, 2.

Repeal.

1. Neither reissued nor extended patents can be abrogated by an infringer, in a suit against him for infringement, upon the ground that the letters were procured by fraud in prosecuting the application for the same before the Commissioner. Seymour v. Osborne, 290
2. The question raised but not considered whether the court has jurisdiction to entertain proceedings to declare a patent null, *ab initio*, which though no

- PAGE.
- longer in force as to present or future infringements, is used to sustain suits for infringements during its validity. *Mowry v. Whitney*, 506
3. No one but the Government, either in its own name or in the name of its appropriate officer, or by some form of proceeding which gives official assurance of the sanction of the proper authority, can institute judicial proceedings for the purpose of vacating or rescinding the patent which the Government has issued to an individual, except in the cases provided for in sec. 16 of the Act of July 4, 1836. Demurrer to bill to vacate a patent brought by complainant in his own right sustained. *Mowry v. Whitney*, 506
4. Although in this country the writ of *scire facias* is not in use as a chancery proceeding the nature of the chancery jurisdiction and its mode of proceeding have established it as the appropriate tribunal for the annulling of a grant or patent from the Government. *Mowry v. Whitney*, 506
- See Construction of Statutes, 3; Expired Patent, 1; Fraud, 1; Reissue, 1.

Replication.

See Burden of Proof, 4.

Right of Action.

1. Subsequent sale and transfer of the exclusive right in a patent are no bar to an action to recover damages for an infringement committed before such sale and transfer. *Moore v. Marsh* 14
- See Construction of Statutes, 1, 2; Executor, 3, 4.

Sale.

See Extension, 1; Right of Action, 1.

Scire Facias.

See Repeal, 4.

Special Act.

See Defense, 2; Particular Patents, 23.

Specification.

1. What constitutes a sufficient description of an invention when it embraces an entire machine; or a combination of old and new elements; or a new combination of old elements. *Seymour v. Osborne* 290
- See Composition of Matter, 1; Particular Patents, 4, 14.

State of the Art.

1. While the court may properly consider the state of the art in the construction of the patent, it has no bearing upon the question whether patentee is the first inventor in the absence of the statutory notice of such prior knowledge and use. *Phila., Wil. & Balt. R. R. Co. v. Du Bois* 488

Statutes.

See Construction of Statutes.

Statutory Notice.

See Burden of Proof, 1; Evidence, 5; Notice, 1; Particular Patents, 10.

"Substantially as Described."

See Construction of Claims, 1.

Substituted Service.

See Bill in Equity, 2.

Substitution of Equivalent.

See Formal Change, 1; Particular Patents, 8.

Suggestions.

See Employer and Employé, 1; Particular Patents, 22

Trustee.

See Executor, 3.

Two Patents for Same Subject.

See Abandoned Experiment, 1.

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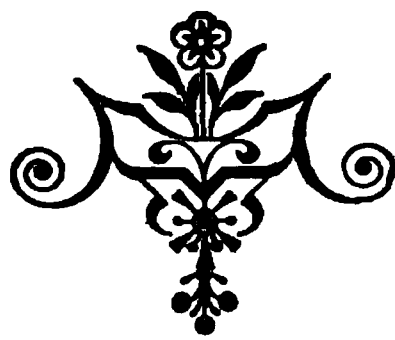
See Evidence, 4.

Waiver.

1. Where on an accounting before a master it was objected that the word "patented" with date was not affixed to the article as required by Act 1861, sec. 2, no such issue having been made by the pleadings, *held* that it was too late to raise it before the master, and it must be deemed waived. *Providence Rubber Co. v. Goodyear* 150
2. Where plaintiff asked for no instructions in the court below, he cannot now be heard to complain that full instructions were not given; notwithstanding that what the court said may have been inadequate to a full presentation of the case. *Butler v. Watkins* 496

Writ of Error.

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